# ESSAYS

03

# INDIAN ANTIQUITIES,

HISTORIC, NUMISMATIC, AND PALÆOGRAPHIC,

BY

EDWARD THOMAS,



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RAMA VARMA RESEARCH INSTITUTE, TRICHUR, GOCHIN STATE,



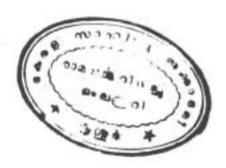


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ETC.

RAMA VARMA RESEARCH INSTITUTE. TRICHUR, COCHIN STATE.





## INDIAN ANTIQUITIES.

HISTORIC, NUMISMATIC, AND PALÆOGRAPHIC,

OF THE LATE

#### JAMES PRINSEP, F.R.S.,

SECRETARY TO THE ASIATIC SOCIETY OF BENGAL :

TO WHICH ARE ADDED HIS

#### USEFUL TABLES,

EDITED, WITH NOTES, AND ADDITIONAL MATTER.

#### EDWARD THOMAS,

LATE OF THE RENGAL CIVIL SERVICE; MYMMER OF THE ASSAULT SOCIETIES OF CALCUTTA,

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#### NUMISMATIC ESSAYS.

RAMA VARMA RESEARCH INSTITUTE.
TRICHUR: COCHIN STATE.

ALPHABET TO THE BUDDHIST GROUP OF COINS.

[ 7rm JUNE, 1837.]

Having once become possessed of the master-key of this ancient alphabet, I naturally hastened to apply it to all the doors of knowledge hitherto closed to our access. Foremost among these was the series of coins conjecturally—and, as it now turns out, correctly—designated as the Buddhist series; and of these, the beautiful coin discovered by Lieut. Conolly, at Kanauj, attracted the earliest notice from the very perfect execution and preservation of the legend; [see pl. vii., fig. 1, vol. i., p. 115]. The reading of this coin was now evident at first sight, as the Vippa-devasa; which, converted into its Sanskrit equivalent, will be faux vipra-devasya, '(the coin) of Vipra-deva.' On reference to the chronological tables, we find a Vipra in the Magadha line, the tenth in descent from Jarasandha, allotted to

the eleventh century before the Christian era! Without laying claim to any such antiquity, we may at least bespeak for our Vipra-deva a place in the Indu-vansa line of Magadha, and a descent from the individual of the same name in the Pauránic lists.

[ I regret to have to disturb this identification, but the new reading of the name on the coin, as Vishnu-deva, is distinct and positive! Prinsep himself, it will be seen hereafter, amended his first form of  $\mathfrak{b}=ph$ , to  $\mathfrak{b}$ , [see pl. xxxvii.] The true letter on the coin is the old equivalent of  $\mathfrak{q}$  sh, which does not seem to have been met with in either the Lát character or that of the Western caves, though Dr. Stevenson gives the letter in its present shape among what he terms Satrap characters.—Jour. Bombay Br. As. Soc., July, 1853, pl. xvii.]

Other coins depicted in former plates may, in a similar manner, be read by the new alphabet.

The small bronze coins of Behat (fig. 5, pl. [iv.] xviii., vol. iii. and fig. 13 of pl. [xix.] xxxiv., vol. iv.) have the distinct legend screet in the square form of the same alphabet. The application of the word mahirajasa in the genitive, with no trace of a name, might almost incline us to suppose that the title itself was here used as a name, and that it designated the 'Mahraje, king of Awadh,' of the Persian historians, who stands at the head of the third lunar dynasty of Indraprastha, in the 'Rájávalí'!

The only other coin of the group which contains the same title, is the silver decayed Behat coin, seen more perfect in Ventura's specimen (fig. 16 of pl. [xix.] xxxiv., vol. iv.), where may be read indistinctly NEL-GALEGEE.....+114.

Amapasátasa mahárája . . kunarasa. [See vol. i., p. 204].

On the bronze Behat coin (figs. 11, 12, of pl. [iv.]

xviii., vol. iii., and 3, 6, 9, of pl. [xix.] xxxiv., vol. iv.), though we have ten examples to compare, the context is not much improved by the acquisition of our new key: the letters are DADL+LADA basa dhana kanaya dhaya; (the second letter is more like & bhu.)

Stacy's supposed Greek legends (figs. 2, 3, of pl. [vii.] xxv., vol. iii.), may be read (as I anticipated), [vol. i., p. 114], invertedly while I and bijana puta (sa?)

The larger copper coin, having a standing figure holding a trident (fig. 4, pl. [vii.] xxv., vol. iii.) has, very distinctly, the name of hashed . . . . Bhagavata cha (or sa). A rája of the name of Bhagavata appears in the Magadha list, about the year 80 s.c.

On some of the circular copper coins, we have fragments of a legend #87 ... Bhámada . . . . vatapasa, quasi Bhímadeva tápasya—but the last word is the only one that can be confided in.

On a similar coin, of which Stacy has a dozen specimens (fig. 47, pl. [xx.] xxxv., vol. iv.) the name of resul-Rámadatasa, 'of Rámadatta,' is bounded by the 'lizard' emblem of Behat.

These are the only two in the precise form of the Lát character—the others are more or less modified.

Another distinct group (that made known first by Mr. Spiers) from Allahábád (pl. [viii.] xxvi., figs. 12-15, vol. iii., p. 436, See Art. vi.), can be partially deciphered by the Lát alphabet. Capt. Cunningham has a fine specimen with the letters redlade Rája Dhana-devasya, 'of Rája Dhana-deva,' a name not discoverable in the catalogue, though purely Sanskrit. On three more of the same family, we find Lad Navasa. On one it seems

rather 11th Narasa, both Nava and Nara being known names. On another tible Kunamasa; and on another, probably, would mahapati, 'the great lord.'

The 'bull' coins of this last group are connected in type, and style of legend, with the 'cock and bull' series; on which we have lately read Satya-mitasa, Saya-mitasa, and Bijaya-mitasa; so that we have now a tolerably numerous descending series of coins to be classed together from the circumstance of their symbols, of their genitive termination, and their Pálí dialect and character, as a Buddhist series, when we come again to review what has been done within the last few years in the numismatology of India.

But the most interesting and striking application of the alphabets to coins is certainly that which has been already made (in anticipation, as it were, of my discovery, by Lassen, to the very curious Bactrian coins of Agathocles.

The first announcement of Lassen's reading of this legend was given [vol. i. p. 401]. He had adopted it on the analogies of the Tibetan and Pálí alphabets, both of which are connected with, or immediately derived from, the more ancient character of the Lats. The word read by him, 'raja,' on some specimens seems to be spelt LE yaja, rather than JE laja, a corruption equally probable, and accordant with the Pálí dialect, in which the r is frequently changed into y, or omitted altogether. I am, however, inclined to adopt another reading, by supposing the Greek genitive case to have been rendered as literally as possible into the Pálí character; thus ΑΛΟΤΙΕ Agathuklayej for Αγαθοκλεως: this has the advantage of leaving the letters on the other side of the device for the title, rájá, of which, indeed, the letter ɛ is legible.

I am the rather favorable to this view, because, on the corresponding coin of Pantaleon, we likewise find both the second vowel of the Greek represented by the Sanskrit semivowel, and the genitive case imitated: supplying the only letter wanting on Swiney's coin—the initial p,—of which there are traces in Masson's drawing, the word b-A-J&-C Pantelewantá, is, by the help of our alphabet, clearly made out; the anuswára, which should follow the & being placed in the belly of the letter instead of outside; and the á being attached to the centre instead of the top of the c [Pantalevasa.]

The discovery of these two coins with Pálí characters, is of inestimable importance in confirming the antiquity of the alphabet; as, from the style of Agathoeles' coins, he must necessarily be placed among the earliest of the Bactrians, that is, at the very period embraced by the reign of Asoka, the Buddhist monarch of Magadha.

On the other hand, the legend throws light on the locality of Agathoeles' rule, which, instead of being, as assigned by M. Raoul Rochette, in 'Haute Asie,' must be brought down to the confines, at least, of India proper.

As, however, the opinions of this eminent classical antiquary are entitled to the highest consideration, I take this opportunity of making known to my readers the substance of his learned elucidation of this obscure portion of history, given in a note on two silver coins of Agathoeles, belonging to the cabinet of a rich amateur at Petersburg, published in the 'Journal des Savans,' 1834, p. 335:

'In the imperfect accounts transmitted to us of the troubles occasioned to the Selcucidan kingdom from the invasion of Ptolemy Philadelphus, and of the loss of entire provinces after the reverses of Antiochus II. Theos; the foundation of the Arsacidan kingdom by the defection of the brothers Areaces and Tiridates is an established point, fixed to the year 256 s.c. But the details of this event, borrowed from Arrian's 'Parthies,' have not yet been determined with sufficient care, as to one important fact in the Bactrian history. From the extracts of various works preserved in Photius, the defection of the Parthians arose from an insult offered to the person of one of these brothers by the Macedonian chief placed by Antiochus II. in charge of the regions of High Asia, and named Phéréclès. The two princes, indignant at such an outrage, are supposed to have revenged themselves with the blood of the satrap, and, supported by the people, to have succeeded in shaking off the Macedonian yoke.

'This short notice from Photius has been corrupted by transcribers in the name of the chief Phéréclès, which modern critics have failed to correct by a passage in the 'Chronographia' of Syncellus, who had equally under his eyes the original of Arrian, and who declares expressly that 'Arsaces and Tiridates (brothers, issue of the ancient king of Persia, Artaxerxes), exercised the authority of satraps in Bactria at the time when Agathocles, the Macedonian, was governor of Persia; the which Agathocles, having attempted to commit on the person of the young Tiridates the assault before alluded to, fell a victim to the vengeance of the brothers, whence resulted the defection of the country of the Parthians, and the birth of the Arsacidan kingdom.' Agathoeles is called by Syncellus, "Επαρχος της Περσικής, while Photius calls him (under an erroneous name) Σατράπην αυτής τής χώρας καταστάντα, appointed by Antiochus Theos; so that no doubt whatever could exist as to their identity, although, until the discovery of the coins, there was no third evidence whence the learned could decide between the two names. The presumption might have been in favor of Agathocles, because among the body-guard of Alexander was found an Antylocus, son of Agathoeles, who, by the prevailing custom of his country, would have named his son Agathocles, after his own father.'

M. R\u00e3oul Rochette proceeds to identify the Eparch of Persia with Diodotus, or Theodotus, the founder of the

Bactrian independency :- supposing him to have seized the opportunity of striking the blow during the confusion of Antiochus' war with Ptolemy, and while he was on deputation to the distant provinces of the Oxus,-that he was at first chary of placing his own head on his coin, contenting himself with a portrait of Bacchus, and his panther on the reverse, but afterwards emboldened to adopt the full insignia of royalty. Thus, according to our author, a singular shift of authorities took place: Arsaces, the satrap of Parthia, quits that place and sets up for himself in Persia, in consequence of the aggression of Diodotus (or Agathocles), king of Bactria, who had originally been Eparch of Persia,-both satraps becoming kings by this curious bouleversement. The nondiscovery of Theodotus' medals is certainly in favor of M. Raoul Rochette's argument, but the present fact of a Hindí legend on his coin militates strongly against his kingdom being thrown exclusively to the northward-By allowing it to include Parthia proper, or Seistan, and the provinces of the Indus, this difficulty would be got rid of; but still there will remain the anomaly of these Indian legends being found only on Agathocles, and Pantaleon's coins, while those of Menander, who is known to have possessed more of India proper, have only the Pehlví Agathocles' rule must have included a sect of reverse. Buddhists somewhere, for, besides the letters, we find their peculiar symbol present on many of the 'panther' coins. At any rate, we have certainty of the existence of our alphabet in the third century before Christ, exactly as it exists on our Indian monuments, which is all that on the present occasion it is relevant to insist upon. . . .

[ Prinsep then goes on to test the application of this alphabet to other classes of inscriptions, and terminates his remarks with—]

A few words in conclusion regarding the alphabet, of which I have had a fount prepared while this article was setting up for press.

There is a primitive simplicity in the form of every letter, which stamps it at once as the original type whereon the more complicated structure of the Sanskrit has been founded. If carefully analyzed, each member of the alphabet will be found to contain the element of the corresponding member, not only of the Devanágarí, but of the Kanauj, the Pálí, the Tibetan, the Hala Kanara, and of all the derivatives from the Sanskrit stock.

But this is not all: simplification may be carried much farther by due attention to the structure of the alphabet, as it existed even at this early stage, and the genius of its construction, ab initio, may in some measure be recognized and appreciated.

First, the aspirated letters appear to have been formed in most cases by doubling the simple characters; thus,  $\bullet$  *chh* is the double of  $\bullet$  *ch*;  $\circ$  *th* is the double of  $\bullet$  *t*;  $\circ$  *th* is the same character with a dot as a distinguishing mark: (this may account for the constant interchange of the  $\bullet$ ,  $\bullet$ ,  $\circ$ , and  $\circ$ , in the inscriptions). Again:  $\bullet$  *dh* is only the letter  $\bullet$  produced from below—if doubled, it would have been confounded with another letter, the  $\bullet$ . The aspirated p  $\bullet$  is merely the  $\bullet$  p with a slight mark, sometimes put on the outside, either right or left,  $^1$  but I cannot yet affirm

<sup>&</sup>lt;sup>1</sup> [I have allowed Prinsep's original speculations on the structure of this alphabet to stand uncommented upon; and have reserved for rectification, under his own hand, in the succeeding article, whatever was left imperfect or incomplete in this.]

that this mark may not merely denote a duplication of the letter rather than an aspiration—if, indeed, the terms were not originally equivalent; for we have just seen the doubling of the letter made to denote its aspiration.

The kh seems formed from the g rather than the k: the gh and jh are missing as in Tibetan, and appear to be supplied by g and chh respectively: bh is anomalous, or it has been formed from the d by adding a downward stroke.

Again, there is a remarkable analogy of form in the semi-vowels r, r, l, y, l, J, J, J, which tends to prove their having been framed on a consistent principle: the first r hardly ever occurs in the Dihlí inscription, but it is common in that from Girnár. The  $h \, \iota$  is but the J reversed: the ri, so peculiar to the Sanskrit alphabet, is formed by adding the vowel i to the r, thus, r.

As far as is yet known, there is only one n, and one s: the nasals and sibilants had not therefore been yet separated into classes; for the written Pálí of 200 years later possesses at least the various n's, though it has but one s.

The four vowels, initials, have been discovered,  $x_i : a, i, c, u$ . The second seems to be the skeleton of the third, as if denoting the smallest possible vocal sound. Of the medial vowels it is needless to speak, as their agreement in system with the old Nágarí was long since pointed out. The two long vowels i and u, are produced by doubling the short symbols. The visarga is of doubtful occurrence, but the anuswára is constantly employed;

<sup>&</sup>lt;sup>1</sup> I think the Giraar and Ceylon inscriptions will be found to have the other nasals made by the modification of the primary ⊥. There are other letters in these texts not found in the Lats of this side of India.

and when before m, as in D-8 dhamma, it is equivalent to the duplication employed in the more modern Pálí writing. The following, then, is our alphabet, arranged in the ordinary manner.

Gutturals ..... + 1 A k kh g gh ng क ख ग घ ङ ch chh j jh ny च क् जझ त्र Palatals ...... d & E . Cerebrals ..... ( O + 6 . t th d dh n र र द द स Dentals ...... A O > D 1 t th d dh n त य द ध न Labials ...... L b D # 8 p ph b bh m पफनभम Semivowels, etc. 11 Johry rl v s h यर ज व स ह Vowels ...... x > > L P a i e u ां चर्एउस

We might, perhaps, on contemplation of these forms, go yet farther into speculation on their origin. Thus the g may be supposed to be formed of the two strokes of the k, differently disposed; the j, of the two half curves of the ch superposed; the two d's  $^1$  are the same letter turned right and left respectively; and this principle, it may be remarked, is to be met with in other scions of the Indian alphabet. Thus, in the Tibetan, the  $\exists z$ , a sound unknown to the Sanskrit, is made by inverting the  $\exists j$ ; the cerebral n, by inverting the dental n; and the cerebral n, by inverting the dental n; and the cerebral n, by inversion of the dental n; and the cerebral n, by inversion of the dental

The analogy between the  $\epsilon$  and  $\lambda$  is not so great in this alphabet as in what we have imagined to be its successor, in which the essential part of the (L) t is the  $\epsilon$  placed downwards  $(\ )$ . In the same manner, the connection of the labials, p and b, is more visible in the old Ceylonese, the Kanauj, and even the Tibetan alphabets;

<sup>&</sup>lt;sup>1</sup> It is worth observation that the dental d of the inscriptions corresponds in form to the modern cerebral, and vice versă.

the  $\neg b$  being merely the  $\neg p$  closed at the top; and in square Pálí  $\cup$  and  $\square$ 

Thus, when we come to examine the matter critically, we are insensibly led to the reduction of the written characters to a comparatively small number of elements, as +, d, (, , 1, b, 8, 1, b and d); besides the vowels m >, L. Or, perhaps, in lieu of this arrangement, it may be preferable to adopt one element as representative of each of the seven classes of letters. We shall thus come to the very position long ago advanced by Iambulus the traveller.

Iambulus was antecedent, says Dr. Vincent, to Diodorus; and Diodorus was contemporary with Augustus. He made, or pretended to have made, a voyage to Ceylon, and to have lived there seven years. Nine facts mentioned by him as characteristic of the people of that country, though doubted much in former days, have been confirmed by later experience: a tenth fact the learned author of the 'Periplus' was obliged to leave to future inquiry,—namely, "whether the particulars of the alpha bet of Ceylon may not have some allusion to truth: for, he says, 'the characters are originally only seven, but by four varying forms or combinations they become twenty-eight.'"

It would be difficult to describe the conditions of the Indian alphabetical system more accurately than Iambulus has done in his short summary, which proves to be not only true in the general sense of the classification of the letters, but exact as to the origin and formation of the symbols. As regards the discussion of the edict of

<sup>1</sup> Vincent's 'Periplus of the Erythrean Sea.'

Devánampiyatissa, the testimony of Iambulus is invaluable, because it proves that written characters—our written characters—were then in use (notwithstanding the Buddhist books were not made up till two centuries later:) and it establishes the credit of a much vituperated individual, who has been so lightly spoken of, that Wilford endeavours to identify him with Sindbad the Sailor, and other equally marvellous travellers!

[Though not strictly susceptible of classification with numismatic developments, I am anxious to associate with James Prinsep's other contributions to the historical antiquities of India, his most interesting discovery of the names of the early successors of Alexander the Great, on the lapidary monuments of Asoka, the grandson of Chandragupta.]

#### DISCOVERY OF THE NAME OF ANTIOCHUS THE GREAT, IN TWO OF THE EDICTS OF ASOKA, KING OF INDIA.

(Read at the Meeting of the Asiatic Society of Bengal, on the 7th March, 1838.)

As long as the study of Indian antiquities confines itself to the illustration of Indian history, it must be confessed that it possesses little attraction for the general student, who is apt to regard the labor expended on the disentanglement of perplexing and contradictory mazes of fiction, as leading only to the substitution of vague and dry probabilities for poetical, albeit extravagant, fable. But the moment any name or event turns up in the course of such speculations, offering a plausible point of connection between the legends of India and the rational histories of Greece or Rome,—a collision between the fortunes of an eastern and a western hero,-forthwith a speedy and spreading interest is excited, which cannot be satisfied until the subject is thoroughly sifted by the examination of all the ancient works, western and eastern, that can throw concurrent light on the matter at issue. Such was the engrossing interest which attended the identification of Sandracottus with Chandragupta, in the days of Sir Wm. Jones: such the ardour with which the Sanskrit was studied, and is still studied, by philologists at home, after it was discovered to bear an intimate relation to the classical languages of ancient Europe. Such, more recently, has

been the curiosity excited, on Turnour's throwing open the hitherto scaled page of the Buddhist historians to the development of Indian monuments and Pauranic records.

The discovery I was myself so fortunate as to make, last year, of the alphabet of the Dihlí Pillar Inscription, led immediately to results of hardly less consideration to the learned world. Dr. Mill regarded these inscriptions as all but certainly demonstrated relics of the classical periods of Indian literature. This slight remainder of doubt has been since removed by the identification of Piyadasi as Asoka, which we also owe to Turnour's successful researches; and, dating from an epoch thus happily achieved, we have since succeeded in tracing the name of the grandson of the same king, Dasaratha, at Gaya, in the same old character; and the names of Nanda and Ailas, and perhaps Vijaya, in the Kalinga caves: while on Bactrian coins we have been rewarded with finding the purely Greek names of Agathocles and Pantaleon, faithfully rendered in the same ancient alphabet of the Hindús.

I have now to bring to the notice of the Society another link of the same chain of discovery, which will, if I do not deceive myself, create a yet stronger degree of general interest in the labours, and of confidence in the deductions, of our antiquarian members than any that has preceded it. I feel it so impossible to keep this highly singular discovery to myself that I risk the imputation (which has been not unjustly cast upon me in the course of my late undigested disclosures), of bringing it forward in a very immature shape, and, perhaps, of hereafter being obliged to retract a portion of what I advance. Yet neither in this, nor in any former communication to the Society, have I to fear any material alteration in their general bearing, though improvements in reading and translation must of course be expected as I become more familiar with characters and dialects unknown for ages past even to the natives themselves, and entirely new to my own study.

A year ago, as the Society will remember, Mr. Wathen kindly sent me a reduced copy of the facsimiles of the inscriptions on a rock at Girnár (Giri-nagara) near Junágarh, in Gujarát, which had been taken on cloth by the Rev. Dr. Wilson, President of the Bombay Literary Society. He also sent a copy to M. Jacquet of Paris, which I dare say before this has been turned to good account.

After completing the reading of the Pillar Inscriptions, my attention was naturally turned to these in the same character from the west of India, but I soon found that the copy sent was not sufficiently well done to be thoroughly made out; and I accordingly requested Mr. Wilson to favour me with the facsimile itself, which, with the most liberal frankness, he immediately sent round under a careful hand by

sea. Meanwhile Lieut. Kittoe had, as you are also aware, made the important discovery of a long series of inscriptions in the same character at a place called Dhaulí, in Katak. These were in so mutilated a state that I almost despaired of being able to sift their contents; and they were put aside, at any rate until a more promising portion of my labour should be accomplished.

I had just groped my way through the Girnár text, which proved to be, like that of the pillars, a series of edicts promulgated by Asoka, but essentially different both in language and in purport. When I took up the Katak inscriptions, of which Lieut. Kittoe had been engaged in making a lithographic copy for my journal, to my surprise and joy I discovered that the greater part of these inscriptions (all, indeed, save the first and last paragraphs, which were enclosed in distinguishing frames), was identical with the inscription at Girnár. And thus, as I had had five copies of the Pillar Inscription to collate together for a correct text, a most extraordinary chance had now thrown before me two copies of the rock edicts to aid me in a similar task! There was, however, one great variance in the parallel; for, while the pillars were almost identical letter for letter, the Girnár and Katak texts turned out to be only so in substance, the language and alphabet having both very notable and characteristic differences.

Having premised thus much in explanation of the manner of my discovery, I must now quit the general subject for a time, to single out the particular passage in the inscriptions which is to form the theme of my present communication,

The second tablet at Girnár is in very good preservation; every letter is legible, and but two or three are in any way dubious. The paragraph at Aswastuma, which I found to correspond therewith, is far from being in so good a state; nevertheless, when the extant letters are interlined with the more perfect Girnár text, they will be seen to confirm the most important passage, while they throw a corroborative evidence upon the remainder, and give a great deal of instruction on the respective idioms in which the two are couched.

The edict relates to the establishment of a system of medical administration throughout the dominions of the supreme sovereign of India, at one of which we may smile in the present day, for it includes both man and beast; but this we know to be in accordance with the fastidious humanity of the Buddhist creed, and we must therefore make due allowance for a state of society and of opinions altogether different from our own.

#### TRANSLATION.

"Everywhere within the conquered provinces of Rāja Piyadasi, the beloved of the gods, as well as in the parts occupied by the faithful, such as Chola, Pida, Satiyaputra,

and Ketalaputra, even as far as Tambapanni (Ceylon)—and moreover, within the dominions of Antiochus the Greek (of which Antiochus' generals are the ralers)—everywhere the heaven-beloved Rāja Piyadasi's double system of medical aid is established, both medical aid for men, and medical aid for animals: together with medicaments of all sorts, which are suitable for men, and suitable for animals. And wherever there is not (such provision), in all such places they are to be prepared, and to be planted: both root-drugs and herbs, wheresoever there is not (a provision of them) in all such places shall they be deposited and planted.

"And in the public highways wells are to be dug, and trees to be planted, for the

accommodation of men and animals."

Many things are deserving of comment in this short edict. . . . But the principal fact which arrests attention in this very curious proclamation, is its allusion to Antiochus the Yona (Sanskrit, Yavana) or 'Greek' king. The name occurs four times over, with only one variation in the spelling, where, in lieu of Antiyako we have Antiyoko, a still nearer approach to the Greek. The final o is the regular Pálí conversion of the Sanskrit nominative masculine termination as, or the Greek os. In the Pillar dialect the visarga of the Sanskrit is replaced by the vowel s, as we see in the interlined reading, Antiyake. Again, the interposition of the semivowel y between the two Greek vowels i and o is exactly what I had occasion to observe in the writing of the words Agathuklayoj and Pantalawanta for Αγαθοκλέως and Πανταλέοντος on the coins. All this evidence would of itself bias my choice towards the reading adopted, even were it possible to propose any other; but although I have placed the sentence, exactly transcribed in the Devanágarí character, in the pandit's hand, he could not, without the alteration of very many letters, convert it to any other meaning, however strained. And were there still any doubt at all in my mind, it would be removed by the testimony of the Katak version, which introduces between Antiyake and Yons the word nama, -making the precise sense 'the Yona raja, by name Antiochus.'

[I transcribe so much of the duplicate version of the original, since illustrated and confirmed by the decipherment of the Arian inscription at Kapur di Giri, as in any way affects the historical value of the document, together with Professor Wilson's commentary and revision of Prinsep's translation. The Professor's opening remarks explain the derivation and arrangement of the parallel texts, inserted in extenso in the Journal of the Royal Asiatic Society.]

In order to exhibit with as much distinctness as possible the

language of the inscriptions . . . . I have placed the several inscriptions in parallel lines, in order to bring the words of each in juxta-position as far as was practicable. They accordingly form four lines. upper line represents Mr. Prinsep's original readings, as published in the Journal of the Asiatic Society of Bengal, vol. vi., p. 228, and above the line, in a smaller character, are inserted his subsequent corrections, as given in a copy of the Journal, corrected by himself, and placed at Mr. Norris's disposal, by his brother, Mr. H. T. Prinsep. Small numerals refer to the lines of our own lithographed copy. This line I have designated G a. The second line is the representation of the copy lithographed (in the 'Jour. Roy. As. Soc.,' vol. xii., p. 153), and which I have generally referred to as Mr. Westergaard's copy, as he has the larger share in it. This is marked G b. The third line marked D repeats the Dhaulí inscription, as given by Mr. Prinsep. We have not yet been fortunate enough to have had a second and revised transcript, although it is very desirable. The lower line is marked K. as being rendered into Roman letters from the lithographed copy of the Kapur di Giri inscription. The small figures here also refer to the lines of the original. Where blanks occur in either of the inscriptions they are denoted by asterisks (dots are used in this work): where words are wanting for the collation, although there is no blank in the inscription, a line (of dots) supplies their place.

#### TABLET II.

Ga Gb D K	<ul> <li>Savata viji</li> <li>avata vin</li> </ul>			vijita vimi	vijitemhi vijitamhi vimitamsi vijite			devånam devånam devanam			piyasa piyasa piyasa priyasa			rano rano  raja
G b		t mapi mapi			yath yath		31.00	hoda hoda		2.7	ida ida			aputo
K	:	:	1		:	:	:	· yi	•	4P1	daya	Satiya j	putra	
G a G b D K	Ke	talepa talapa Ken	ath, a			Famb	a <sup>3</sup> pann apani apani apani	i .	Anti	iyako iyako oko n: iyo <i>ka</i>	kma	yon	a rhj a rhj a lhja a raja	n ye i yû
Ga Gb D K						a Ant			Antiyakasa Antiyakasa Antiyokasa Antiyokasa			samino <sup>4</sup> rájáno sáminom rájáno sámantá lnjáno samata rajaya		

The portion of the Kapur di Giri inscription, which corresponds with the second Tablet of Giraar and Dhauli, is less imperfect than that which answers to the first Tablet, and in the few blanks which occur, it admits of being conjecturally completed without any great violence.

There are, however, several emissions as compared with the Girnár sculpture, which are apparently intentional, constituting a variety in the language, though not in the general purport of the inscriptions. The inscriptions correspond also in the chief point of interest, the mention of Antiochus, the Yona Raja.

The inscription commences with the phrase, Saveta vijite, followed by a short blank, which may be filled up, without much risk of error, by the syllable mhi, of the Girnar Tublet—"everywhere in the conquered countries;"—which is followed by the usual designation "of the beloved of the gods" Piyadasi, the genitive being as before, Priyadasica: the word "countries," it may be presumed, is understood in all the inscriptions.

We have no equivalent for what follows, which is read by Mr. Prinsep, evenupsiparamtess. In Westergaard's copy it might be read, mahi psichantess, but it is, perhaps, only evans api pachantess (for protyantesks) 'also even in the bordering countries,' not as Prinsep proposes, 'as well as in the parts occupied by the faithful.' Nor have we any equivalent for Choda, conjectured by Prinsep to be that portion of the south of India which is known as Chola, or Cholamandala, whence our Coromandel.

Instead of Pida, which requires to be corrected to Poids, we have Polaya, and then Satiya putra cha Keralamputra Tembapani, in near approach to Satiya puto Katalamuti and Tembapani, words which have been thought intended to designate places in the south of India, but of which the two first, Polaya and Satiya-puto, are new and unknown. Kerala is no doubt a name of Malabar, as Chola is of the opposite coast; but we also find both words, in combination with others, designating countries or people in the north-west, as Kamboja, Yayano, Chola, Murala, Kerala, Sáka. (Game-Páthra, referring to a sătra of Pānini, 4, 1, 175.) Tambapani it has been proposed to identify with Tāmraparai, or Coylon, but further research may also remove that to the north. The same authority, giving the Gaza, or list of words indicated in the sâtra, 5, 1, 116, explains them to signify tribes of fighting men, and specifies among them Savitri-putra, which offers some analogy to the Satiyo-putra of the inscription. It is much more likely that countries in the north-west, than in the extreme south, of India are intended.

We next come to the important passage in which a Greek name and designation occur. Both the Girnar copies read Antiyako yona rajia: the Kapur di Giri has Antiyokans yong raja; but the two last letters, me, are rather doubtful. It should perhaps be Antiyoke nama, as at Dhauli, where we have tiyoke nama yona kija. The use of the nominative case, however, offers a syntactical perplexity, for there is not any verb through which to connect Antiochus with the rest of the sentence; and it seems unusual to associate the name of an individual with those of places. Prinsep supplies the defect with 'the dominions of Antiochus the Greek;' but we have no term for 'the dominions,' nor is the noun in the genitive case, as it is in what follows. In this the Kapur di Giri inscription nearly agrees with that of Girnar, and it may be read ye cha a rana tasa Antiyokasa samata rajaya sakato devanam priyasa, etc., that of Girnar being ye of pi tasa Antiyakasa samipam rajano savata. Either may be rendered 'and those princes who are near to Antiochus everywhere;' although rujaya is an unusual form of the plural of raise, being neither Sanskrit nor Pali. The object of prefixing a to rejust in the word arana, being equivalent to 'no king,' is not very intelligible, and it can scarcely be doubted that sukuto should be swents, as found both at Girnar and Dhauli. It seems likely that there may be some inaccuracies in this part, either in the original or the copy. But admitting a concurrent reading, we still want a connecting word, and it is not specified what these neighbours or dependants of Antiochus are to do. We may presume that they are expected to attend to the object of the edict, or they may be comprehended in the list of the savats virite, 'the conquered.'

#### PROPOSED TRANSLATION.

In all the subjugated (territories) of the King Priyadasi, the beloved of the gods, and also in the bordering countries, as (Choda), Palaya, (or Paraya), Satyaputra, Keralaputra, Tambapani (it is proclaimed), and Antiochus by name, the Yona (or Yavana) Raja, and those princes who are near to (or allied with) that monarch, universally (are apprised) that (two designs have been cherished by Priyadasi: one design) regarding men, and one relating to animals; and whatever herbs are useful to men or useful to animals.

#### PRINSEP'S TRANSLATION.

'Everywhere within the conquered province of raja Piyadasi, the beloved of the gods, as well as in the parts occupied by the faithful, such as Chola, Pida, Sati-yaputra, and Ketalaputra, even as far as Tambapanni (Ceylon); and moreover, within the dominions of Antiochus, the Greek (of which Antiochus' generals are the rulers)—everywhere the heaven-beloved raja Piyadasi's double system of medical aid is established; both medical aid for men, and medical aid for animals; together with the medicaments of all sorts, which are suitable for men, and suitable for animals.'

CONTINUATION OF REMARKS ON THE EDICTS OF PIYA-DASI, OR ASOKA, THE BUDDHIST MONARCH OF INDIA, PRESERVED ON THE GIRNA'R ROCK IN THE GUJARA'T PENINSULA, AND ON THE DHAULI' ROCK IN KATAK; WITH THE DISCOVERY OF PTOLEMY'S NAME THEREIN.

(Read at the meeting of the Asiatic Society of Bengal, on the 4th April, 1838).

In continuation of the discovery I had the pleasure of bringing to the notice of the Society at its last meeting, I am now enabled to announce that the edicts in the ancient character from Gujarát do not confine their mention of Greek sovereigns to Antiochus the ally of Asoka, but that they contain an allusion, equally authentic and distinct, to one of the Ptolemies of Egypt! The edict containing this highly curious passage is in a mutilated condition and at the very end of the inscription, which will account for its having hitherto escaped my attention. As I propose to lay before the Society a brief account of the whole of the Girnár inscription, I will do no more than mention the fact at present, reserving the particulars until I come to the actual position of the passage on the stone.

I have already mentioned the fortunate discovery of a duplicate of the Gujarát inscription, at Dhaulí, in Katak.

The divided sentences, or, as I shall for the present venture to call them, the edicts, which are common to Girnár and to Dhaulí, are eleven in number. From the first to the tenth they keep pace together: the only difference being that while, at Girnár, each is surrounded by an engraved line as a frame; at Dhaulí, the beginning of each edict is marked by a short dash. The regular succession is then interrupted by three interpolations at Girnár; after which, the fourteenth edict of that series is found to correspond with the eleventh or concluding one of the same set at Dhaulí.

The three missing edicts are more than compensated at Dhanli by the introduction of two others not found at Girnár, one at the end enclosed in a frame, and one on the left hand of the same rock on a larger scale of sculpture; but both of these being of a totally different purport, and being quite unconnected with the rest, I shall postpone for separate consideration.

That the edicts are of different dates is proved by the actual mention of the year of Pivadasi's reign, in which several of them were published. Two of them are dated in the tenth and two in the twelfth year after his abhiesk or consecration, which we learn from Turnour's Páli history did not take place until the fourth year of his succession to the throno of his father, Bindusaro. Only one of the pillar edicts is dated in the twelfth year; the remainder, generally, bearing the date of the twentyseventh year; and one containing both, as if contradicting, at the later epoch, what had been published fifteen years before. From this evidence we must conclude that the Gujarát and Katak inscriptions have slightly the advantage in antiquity over the Lats of Dihlí and Allahábád: but, again, in the order of sequence, we find edicts of the twelfth year preceding those of the tenth; and we learn expressly from the fourteenth edict that the whole were engraven at one time. Their preservation on rocks and pillars therefore must be regarded as resulting from an after order, when some re-arrangement was probably made according to the relative importance of the subjects.

The copy that emanated from the palace must, however, have been modified according to the vernacular idiom of the opposite parts of India to which it was transmitted, for there is a marked and peculiar difference, both in the grammar and in the alphabet of the two texts, which demands a more lengthened examination than I can afford to introduce in this place. I shall, however, presently recur to this subject, and, at least, give the explanation of those new characters which I have been obliged to cut in order to print the Girnár text, and which, in fact, render the alphabet as complete as that of the modern Páli,

<sup>&</sup>lt;sup>1</sup> I use these terms as more consonant to our idiom: the correct translation is <sup>1</sup> having been consecrated ten and twelve years, so that the actual period is one year later in our mode of reckoning.

wanting only the two additional sibilants of the Devanágarí, and some of the vowels. . . . .

There is another paragraph at Girnár placed at the bottom of the left hand, which I have numbered as the thirteenth, because it seems naturally to follow the paragraph about conversions; and like the two foregoing it is omitted at Dhaulí. From the mutilated state of the rock in this place it is difficult to put together the context of the entire paragraph; but insulated phrases are intelligible enough, and are much in the same strain as the main inscription, repeating the usual maxim of duty to parents, humanity to animals, and liberality to priests. . . . .

But there is a further passage in this Gujarát edict more calculated to rivet our attention than all that I have briefly alluded to above, or even than the mention of Antiochus in the second or medical edict. Although we might be agreeably surprised at finding the name of a Greek prince of Syria preserved in the proclamation of a Hindú sovereign, there were circumstances of alliance and connection in the histories of the Macedonian provinces and of India, which immediately explained away the wonder, and satisfied us as to the likelihood of the fact;—but I am now about to produce evidence that Asoka's acquaint-ance with geography was not limited to Asia, and that his expansive benevolence towards living creatures extended, at least in intention, to another quarter of the globe;—that his religious ambition sought to apostolize Egypt;—and that we must hereafter look for traces of the introduction of Buddhism into the fertile regions of the Nile, so prolific of metaphysical discussions from the earliest ages!

The line to which I allude is the fifth from the bottom. Something is lost at its commencement, but the letters extant are, with few exceptions, quite distinct, and as follow:—

#### የጥጥ D·R ተ፞፞፞፞፞፞፞፞፞፞፞፞፞፞ኯ፟ጜ ነገጥን ድላሂ ደፕሬድቦ · ዓንፕ ዋ፫ዲ ሬድ-ፒ የነጹ ዌ ዓ ÷ ሃታፕዋ ጽሂዓ · · · : D ርነ ኦቴላሳ ዋናሃ ኦዩፕ ·

- . . Yona rdjd paran che, tena Chaptáro rájáno, Turamáyo che, Gongakena che, Magá che,
- . . . idhd para de (se) su cha savata Devdnampiyasa dhommdnusastin anuvatare yata pandati (? dharmasastin anuvartate yatra padyate).
- "And the Greek king besides, by whom the Chapta kings, Ptolemaios, and Gongakenos (?) and Magas,"—(here we may supply the connection)—"have been induced to permit that—"1
- Both here and in foreign countries, everywhere (the people) follows the doctrine of the religion of Devánampiya wheresoever it reacheth.'

<sup>&</sup>lt;sup>1</sup> [ In the full translation subsequently given, 'Jour. As. Soc. Ben.' vii., p. 261, the words are, 'And the Greek king besides, by whom the Kings of Egypt, Ptolemaios and Antigonos (?) and Magas'...]

The sight of my former friend, the yong raja (whom, if he should not turn out to be Antiochus the ally, I shall shortly find another name for), drew my particular attention to what followed; and it was impossible, with this help, not to recognize the name of Ptolemy even in the disguise of Turamayo. The r is however doubtful; and I think, on second examination, it may turn out an I, which will make the orthography of the name complete. The word rajano, and its adjective chaptare, being both in the plural, made it necessary that other names should follow, which was confirmed by the recurrence of the conjunction cha. The next name was evidently imperfect; the syllabic letter, read as gon, if turned on one side would be rather an, and the next, too short for a g, might, by restoring the lost part above, be made into ti: I therefore inclined to read this name N. L. Antikono for Antigonus; and, assuming that chaptare was a corruption of chatware, 'four,' to understand the passage as alluding to a treaty with the four principal divisions of the Alexandrine monarchy, two of which in the time of Antiochus the Great were governed by princes of these names, viz. : Antigonus, in Macedonia, and Ptolemy Euergetes, in Egypt. fourth name, however, thus remained inexplicable; while on the stone it was even more clear than the others, Maga. . . . It seems, therefore, more rational to refer the allusion in our edict to the former period [B.c. 260], and so far modify the theory I have lately adopted on prima facie evidence of the treaty of Asoka with Antiochus the Great, as to transfer it to the original treaty with one of his predecessors, the first or second of the same name, Soter or Theos, of whom the former may have the preference, from his close family connexion with both Ptolemy and Magas. . . . I say nothing of the intermediate name, Gongakena or Antigonus, because I cannot be certain of its correct spelling. Antigonus Gonatus had much to do with the affairs of Egypt, but he could not well be set down among its kings.

[ I again take advantage of Prof. Wilson's most elaborate revision of Prinsep's original translation of this Tablet, prefixing the Romanized variants of the different texts. ]

K	sanyatam					Antiyoko				nama		yona	raja	parancha		tena	
G a					4		+						yona	raja	paran	cha	tena
G b	•				+						ě.	4	yona	rhja	paran	chs	tena
K	Antiyokena					chaturo			1111		rajano	Tura	mara	nama	An-		
G a		•		**		cha	apti	hro		11	11		rájáno	Tura	máyo	cha	An-
G 9				10		chi	attó	LTO		**			rájáno	Tura	mávo	cha	An-

<sup>1 [</sup>To the effect that Antiochus the Great was the monarch of the name re-

K	tikona	DARKA	Mako	nama	Alikasunari	nama	likhichha			
Ga	takana	cha	Maga	cha						
	takana									

The division of the Girnar inscriptions, numbered by Prinsep as thirteen, finds a counterpart at Kapur di Giri; but, unfortunately, it is not of a nature to supply the defects and imperfections of the Girnar tablet. As mentioned by Prinsep, the rock at Girnar is at this part so much mutilated, that it is difficult to put together the context of the entire tablet: portions of the inscription are wanting at either end of each line, especially at the beginning, but the middle portions are tolerably perfect. The rock at Kapur di Giri has not apparently suffered much mutilation, and the inscription is consequently more complete, supplying the words effaced from that at Giruar; but it is not only in this respect that it exceeds in length the Giruar inscription. There are evidently additional passages which the latter does not contain, and which intervene between what are apparently intended for the same passages in both places; on the other hand, there are several obliterations or deficiencies in the Kapur di Giri inscription where that at Girnar is entire. In collating the two, therefore, wide gaps occur without a parallel, partly owing to these respective mutilations,partly to the additional matter at Kapur di Giri. From place to place, however, concurrent passages do occur, which leave no doubt of the general identity of the inscriptions, as will appear from the collateral copy.

It happens, however, still unfortunately, that neither the additional, nor those which are evidently identical, passages in the Kapur di Giri inscription, are for the major part to be satisfactorily deciphered. The circumstances under which the characters were transcribed sufficiently account for the disappointment. Masson has explained the impossibility of taking a fac-simile of this part of the inscription, and he was obliged after many fruitless efforts to effect his purpose, to be content with carrying off a copy only. But the position of the stone, which prevented a fac-simile from being made, was also obviously unfavourable to the making of a faithful copy; and it is not at all therefore to be wondered at, that the forms of the letters should have assumed deceptive appearances, differing consequently in different parts of the inscription, in words which there is reason to believe the same; and varying from one another in words which from one or two distinct characters are known to be identical, as for instance in Devanam prya, in which the latter term is generally legible, and we may therefore infer that decanes precedes it; but, without such a guide, it would be impossible to read devanam, as it presents itself in a number of different and unusual forms. Masson's copy, however, is more legible than one made by a native employed by M. Court, the use of which has been kindly allowed to the Society by Lassen. In this, very few words can be made out, even by conjecture, and with the assistance of Masson's transcript. It has not, however, been wholly unserviceable.

Princep has ventured to propose a continuous translation of the Thirteenth Tablet, although he admits that insulated phrases alone are intelligible. Such is the case in the Kapur di Giri inscription; and it were very unsafe to propose anything like a connected rendering, even of what is perfect, although a few words and phrases are decipherable, and may be compared with similar words and phrases in the Girnár tablet. In most of these passages, however, the reading of the original itself is conjectural only, for it will follow from the sources of imperfection described, that although a transcript has been attempted as above in Roman characters, yet no great reliance is to be placed on the greater part of it, particularly where parallel passages are not found in the Girnár inscription.

Deficiencies at the end of the seventh and beginning of the eighth line at Girnar, are rather more than adequately filled up at Kapur di Giri, and some of the additional matter is important. The name and designation, Antiyoka nama your Raja, are given distinctly: why he is introduced does not very well appear, but we might venture to connect it with what precedes, and to interpret and fill up the passages thus: 'He who had obtained the alliance of men-he has been received as the friend of (me) Devanampriya: ' we have for this conjectural rendering, Devanam priyasa; then some unreadable letters, sampapi (for samaprapi) yo janasa (su) sanyatam. At Girnkr we have only your Raja, but no name, no Antiochus, nor any circumstance relating to him. Both inscriptions next read parancha, 'and afterwards;' the Girnar has then tens, 'by him,' which, as no name was specified, Prinsep necessarily interpreted, 'by whom' (rather 'by him,' the Greek king). In the Kapur di Giri tablet, tens refers of course to Antiochus; but, not to leave any doubt on this score, the inscription repeats the name, and gives us tens Antiyokena, 'by that Antiochus;' thus furnishing a very important illustration of the Girnar tablet. What then was done by him? by that Antiochus? this is not to be made out very distinctly; but, connected with what follows, it may be conjectured to imply that four other Greek princes were brought under subjection by him. There can be no doubt that the numeral which Prinsep read chaptaro is, properly, chattaro. There is no p in the Kapur di Giri inscription; it is, clearly, chataro, with the usual disregard of correct orthography and identification of long and short vowels. In the Girnar inscription the form is like pt, no doubt; but this combination, as already observed, treating of Tablet XII., is so utterly repugnant to the most characteristic feature of Pali, that it cannot be allowed; and in this case, if the original word intended to be the Sanskrit numeral chatwars, the p The only admissible reading is chatters, the regular would be gratuitously inserted. Pali form of the Sanskrit chatword: four indistinct marks follow the numeral in each inscription, being probably intended for figures equivalent to four. We then have the several names of the four princes remarkably distinct, and it luckily happens that M. Court's copy is also very legible in this passage, and entirely confirms Masson's rendings. . The passage runs thus: Turamara nama, Antikona nama, Mako nama, Alikameneri nome. At Girnar the last name is wanting, there being some letters obliterated. We have also some variation in the reading, but not material, the names being there, Turamayo cha, Antakana cha, Maga cha. The two inscriptions give us, no doubt, the names of four Greek princes, of whom Ptolemy, Antigonus, and Magas may be readily recognised, although, how they come into juxta-position with Antiochus on the one hand, or Alexander on the other, is only to be explained by the supposition that, although these names had from their celebrity reached the west of India, the history of the persons so named was vaguely and incorrectly

We shall, however, recur to the subject: at present we are only concerned with the purport of the inscription, which is unfortunately by no means distinct. We have the order, by that Antiochus four Yavana kings, were:—what? neither inscription enables us to answer: the Girnar inscription being in fact here mutilated. Prinsep, in his introductory remarks, supplying the connection conjecturally, fills up the blank by reading, 'And the Greek king besides, by whom the four kings have been induced to permit,' but there is nothing to warrant such a translation; and in the actual rendering of the passage the latter clause is omitted: we there have, 'and the Greek king, besides, by whom the kings of Egypt, Ptolemaios, Antigones (?), and Magas, etc.', and then follows a blank. The Kapur di Giri inscription, although entire, presents characters of undetermined value, and probable insecuracies. The

first term, likkichka thana, is very doubtful; the next appears to be jayavata, which might be rendered 'victorious,' in the instrumental case, agreeing with Antiyokens: anansa is doubtful, both as to reading and sense; ye ass mili puna rajonti might be rendered 'they who (the kings) become his friends, again shine (or enjoy dominion)." We may also render eva hi yona kati yazka, 'such, indeed, is the Yavana become, of whom; there then follow some indistinct characters, and the phrase seems to terminate with suiti hi kits, 'friendship or alliance has been made.' This I admit is very conjectural, and a corrected copy or a better founded interpretation of the original may shew it to be wholly erroneous; but, in the present state of the inscriptions we may hazard the conjecture that the purport of the whole passage may be, that the four princes, after being overthrown by Antiochus, had been reconciled to him, and that an alliance had then been formed between him and the Indian prince Devapriya. There is nothing whatever to justify the supposition that Devapriva had attempted to make converts of the Greek princes, or to disseminate the doctrines and practices of Buddhism in their dominions.

The state of this transcript of the Kapur di Giri inscription is very far from satisfactory, while, from the names it records, it appears to be of great historical value. It would be very desirable to have a fac-simile carefully taken; and, as the part of the country in which it is situated is now within the reach of British influence, it might be possible, perhaps, without much difficulty, to have such a copy. In the 'Jour. As. Soc. Bong.', Feb. 1848, Capt. Cunningham mentions, in his Diary, his having visited the spot, and taken a copy of the most legible portion of the inscription; he adds, however, that a proper copy could only be made by levelling the ground and building up platforms, and by white-washing the surface of the rock to bring out the sunken letters, a work of time, but which would well repay the labour.

[Prof. Wilson, it will be seen, promised to recur to the subject of the identities of the kings named in the inscription; he does so—while contesting the identity of Piyadasi and Asoka—to the following effect]:—

So that neither of these epithets (Priyadarsana, or Su-darsana), is exclusively restricted to Asoka, even if they were ever applied to him.

That they were so applied is rendered doubtful by chronological difficulties, of which it is not easy to dispose: Piyadasi appears to have lived, either at the same time with, or subsequent to, Antiochua. Could this have been the case if he was Asoka? For the determination of this question, we must investigate the date at which the two princes flourished, as far as the materials which are available will permit.

The first point to be adjusted is, which Antiochus is referred to. There are several of the name amongst the kings of the Seleucidan dynasty, whose sway, commencing in Syria, extended at various times, in the early periods of their history, through Persia to the confines of India. Of these, the two first, Antiochus Soter and Antiochus Theos, were too much taken-up with occurrences in Greece and in the

<sup>1</sup> [ A lithograph, by T. Black, of Calcutta is now before me, which purports to give, under Mr. J. W. Laidlay's authority, the 'Inscription at Shah-baz-garhi, copied by Captain A. Cunningham.' The facsimile is defective and erroneous to a marked degree. As it does not include the thirteenth tablet, it affords no aid in determining the probable orthography of the doubtful names. Major Cunningham's own version of the fifth name is quoted at the foot of p. 26.]

west of Asia, to maintain any intimate connexion with India, and it is not until the time of Antiochus the Great, the fifth Seleucidan monarch, that we have any positive indication of an intercourse between India and Syria. It is recorded of this prince that he invaded India, and formed an alliance with its sovereign, named by the Greek writers, Sophagasenas, in the first member of which it requires the etymological courage of a Wilford to discover Asoka. The late Augustus Schlegel conjectured the Greek name to represent the Sanskrit, Saubhägya sena, he whose army is attended by prosperity; but we have no such prince in Hindú tradition, and it could scarcely have been a synonyme of Asoka, the literal sense of which is, he who has no sorrow. Neither is Sophagasenus more like Piyadasi, and so far therefore we derive no assistance as to the identification of Antiochus. Still, with reference to the facts, and to the allusion to his victorious progress, which Tablet XIII. seems to contain, we can scarcely doubt that he was the person intended, and that the Antiochus of the inscription is Antiochus the Great, who ascended the throne, n.c. 223, and was killed, n.c. 187. The date of his eastern expedition is from n.c. 212 to n.c. 205.

There is, however, an obvious difficulty in the way of the identification from the names of the princes which are found in connexion with that of Antiochus, and which the thirteenth Tablet appears to recapitulate as those of contemporary princes, -subjugated, if the conjectural interpretation be correct, by Antiochus. With respect to one of them, Ptolemy, this is allowable, for Antiochus the Great engaged in war with Ptolemy Philopator, the fourth king of Egypt, with various success, and concluded peace with him before he undertook his expedition to Bactria and India. He therefore was contemporary with Antiochus the Great. It is, however, to be recollected that Ptolemy Philopator was preceded by three other princes of the same name, Ptolemy Soter, Ptolemy Philadelphus, and Ptolemy Energetes,-extending through a period of rather more than a century, or from n.c. 323 to n.c. 221. These princes were frequently engaged in hostilities with the Seleucidan kings of Syria, and we cannot therefore positively determine which of them is referred to in the inscription. The long continuance of the same name, however, among the kings of Egypt, as it was retained until the Roman conquest, no doubt made it familiar throughout the East, and we need not be surprised to find it at Kapur di Giri or

The same circumstance will not account for the insertion of the name of Mako, probably Magas, for although there was such a prince, he was far removed from India, and of no particular celebrity. Magas was made ruler of Cyrene by his father-in-law, Ptolemy Soter, the first Greek king of Egypt, about n.c. 308. He had a long reign of fifty years, to n.c. 258. He was not, therefore, contemporary with Antiochus the Great, dying thirty-five years before that prince's accession. He was connected with Antiochus Soter, having married his daughter, and entered into an alliance with him against Ptolemy Philadelphus,—and this association with the names of Antiochus and Ptolemy, generally but not accurately known, may have led to his being enumerated with the two other princes of the same designation, Ptolemy Philopator, and Antiochus the Great. There was a Magas also, the brother of Philopator, but he is of no historical note, and was put to death by his brother in the beginning of his reign. The allusion is, therefore, no doubt to the Magas of Cyrene.

It is impossible to explain the juxta-position of the other two names, Antigonus and Alexander, upon any principle of chronological computation, although we can easily comprehend how the names were familiarly known. That of Alexander the Great must of course have left a durable impression, but he is antecedent to any of his generals who made themselves kings after his death. It is very unlikely that his

son Alexander, who was not born till after his death, and from the age of three years was brought up in Macedonia, where he was murdered when only twelve years old, should be the person intended, and a greater probability would attach to an Alexander who was Satrap of Persia in the beginning of the reign of Antiochus the Grent, and rebelled against him. He was defeated and killed, n.c. 223. So far therefore we have an Alexander contemporary with Antiochus, if that be thought essential; but it seems more likely that here, as in the case of Magas, the concurrence of names is no evidence of synchronism, and arises from the name being familiarly known without any exact knowledge of the persons by whom they were borne.

Such seems to be the case also with respect to Antigonus. The most celebrated of the name, Alexander's general who succeeded to the sovereignty of Phrygia and Lycia, extended his authority to the East by the defeat and death of Eumenes, and his name may thus have become known in India, although the scene of his victories over his rival was somewhat remote from the frontier, or in Persia and The latter portions of his career were confined to Asia Minor and Greece, and he was killed s.c. 301. He was contemporary with the first Ptolemy, but not with Antiochus, having been killed twenty years before the accession of Antiochus Soter. We have another Antigonus, the grandson of the preceding, who was contemporary with Antiochus Soter, but his life was spent in Macedonia and Greece, and it is not likely therefore that any thing should have been known of him in India. It can only be the first Antigorius whose designation reached an Indian prince, and the mention of him in conjunction with Ptolemy, Antiochus, Magas, and Alexander, shows clearly that the chronology of the inscription was utterly at fault, if it intended to assign a contemporary existence to princes who were scattered through, at least, an interval of a century. We must look, therefore, not to dates, but to the notoriety of the names, and the probability of their having become known in India, for the identification of the persons intended. Under this view, I should refer Alexander to Alexander the Great, Antigonus to his successor, Magns to the son-in-law of Ptolemy Philadelphus, Ptolemy to either or all of the four first princes of Egypt, and Antiochus to the only one of the number who we know from classical record did visit India, and who, from the purport of the incriptions, we may infer was known there personally,-Antiochus the Great. In this case we obtain for

¹ [ I append Major Cunningham's criticism on these arguments.] ¹ The minor difficulties of chronology, which form Prof. Wilson's last objection (¹ Jour. Roy. As. Soc.,¹ vol. xii., p. 244), are easily disposed of, for they seem to me to have arisen solely from the erroncous assumption that Priyadarsi must have been a contemporary of Antiochus the Great. In the Girn'ar and Kapur di Giri rock inscriptions, King Priyadarsi mentions the names of five Greek princes who were contemporary with himself. Of these four have been read with certainty—Antiochus, Ptolemy, Antigonus, and Magas; and the fifth has been conjectured to be Alexander. James Prinsep, who first read these names, assigned them to the following princes:—Antiochus II., Theos of Syria, s.c. 265—247; Ptolemy II., Philadelphus of Egypt, s.c. 258—246; Antigonus, Gonatus of Macedon, s.c. 276—213; Magas of Cyrene, or 258; and with these identifications the learned of Europe have generally agreed. ¹ The fifth name has been read by Mr. Norris as Alexander; and if this reading is correct, we may identify this Prince with Alexander II. of Epciros, who reigned from s.c. 272–254; but the two copies of this name, published by Mr. Norris, from facsimiles by Masson and Court, appear to me to read All bha Sunari, which may be intended for Ariobarzanes III., King of Pontus, who reigned from n.c. 266–240. But in either case the date of Priyadarsi inscription will be about s.c. 260–258, shortly preceding the death of Magas.'—'Bhilsa Topes,' p. 111. 'To some it may seem difficult to understand how any relations should exist between the Indian Aseka and the Greek princes of Europe and Africa; but to me it appears natural

the date of the inscription some period subsequent to m.c. 205, at which it seems very unlikely that Asoka was living.

To obviate the chronological difficulty it has been suggested that the Antiochus alluded to is not Antiochus Magnus, but Antiochus Theos, who reigned from n.c. 261 to n.c. 246, and who would therefore be contemporary with Asoka. This is no doubt true, but as intimated above, historical events are opposed to the maintenance of any friendly connexion between the princes of India and Syria during the reign of Antiochus Theos. At its very commencement he was involved in hostilities with the King of Egypt; the war continued during the greater portion of his reign, and amongst its results, were the neglect and loss of the Eastern provinces. Media and Bactria became independent principalities; and their geographical, as well as political position must have completely intercepted all communication between India and Western Asia. It is very unlikely that an Indian sovereign would have promulgated any alliance with the enemy of his immediate neighbours, and we should rather look for the names of Arsaces or Theodotus in his edicts, than that of Antiochus Theos. We cannot, therefore, upon historical grounds admit the identity of the Antiochus of the inscriptions with Antiochus Theos, any more than we can recognise an alliance between Asoka and Antiochus Magnus, as chronologically probable upon such premises as we derive from classical Pauranie, and partly Buddhist data.

If, indeed, we are guided solely by the latter, we shall render the synchronism of the two princes still more impossible. According to the Dipawanse and Mahawanso, Dharmasoka was inaugurated two hundred and eighteen years after the death of Bucklin; his inauguration took place four years after his accession, and we place the latter therefore two hundred and thirteen years after the Nirvan of Gautama. The date of this event was B.C. 543, and 543-214 = B.C. 329; and Asoka, therefore, ascended the throne, according to the Buddhists, before the invasion, not of Antiochus, but of Alexander the Great. This, however, must be wrong, and Mr. Turnour acknowledges that the chronology of the Buddhist chronicles is here at fault; he makes the error amount to about sixty years, and conceives that it was an intentional vitiation of the chronology: with what purpose he has not explained. It is enough for us to determine that Asoka cannot have been the cotemporary of Antiochus the Great, according to the chronology either of Brahman or Buddhist. That Piyadasi was the cotemporary of Antiochus, or even posterior to him, is evident from the inscription, and therefore Piyadasi and Asoka are not one and the same person. That Asoka became a convert to Buddhism after commencing his reign as a sanguinary tyrant, may or may not be true: we have only the assertions of the Buddhists for the fact. But allowing it to be true, if Asoka was not the author of the edicts in question, no inference of their Buddhist character can be drawn from his conversion to the faith of Buddha, and the uncertain evidence afforded by their language is not rendered less equivocal by any positive proof of their having been promulgated by a prince who was a zealous patron of the doctrines of Sakyasinha,

But who then was Piyadasi, the beloved of the gods? This is a question not easily answered. The term is evidently an epithet applied to more than one individual, and not the proper designation of any one person exclusively. We have

and obvious. Asoka's kingdom on the west was bounded by that of Antiochus; his father, Bindusårn, had received missions from Antiochus, Soter, and Ptolemy Philadelphus; and as Asoka was 45 years of age when he was inaugurated, in a c. 259, he might have conversed with both of the Greek ambassadors, Daimachos and Dionysios.'—112.

no such name in any of the Brahmanical traditions, and find it in the Buddhist, as indicating a sovereign prince, to whom it could not have been applied consistently with chronological data, upon the authority of a work of the fourth century of our That any uncertainty with regard to its appropriation should exist, seems very incompatible with the extent of the dominions ruled over by the prince of the inscriptions, as far as we are to infer, from the sites in which they are found, as Gujarat, Katak, Behar, Dihli, and the Panjab. A monarch, to whom all India, except the extreme south, was subject, must surely have left some more positive truce of his existence than a mere epithet, complimentary to his good looks, and shared with many others of equally pleasing appearance. That such almost universal sovereignty in India was over exercised by a single prince is extremely improbable, and it is undeniable, from the evidence of the inscriptions themselves, that they have not been sculptured, in the situations in which they occur, cotemporaneously with the year of any individual reign. Thus, in all the rock inscriptions, the third and fourth edicts are said to be issued in the twelfth year of Piyadasi's inauguration; the fifth and eighth, in the tenth year: the two later edicts, in point of time, taking precedence of the two earlier, in the order of inscription-an utter impossibility. We can only infer, therefore, that they were simultaneously inscribed. Mr. Prinsep states, that it is so specified in the Fourteenth Tablet, but I am unable to understand the passage in that sense. That it was the case, however, is obvious, from the inverted order of the dates, and from the uniform appearance of the inscriptions. The whole must have been cut, therefore, at some subsequent period to the latest of the dates. How long subsequent, is another question of impossible solution; but it is very improbable that the rocks of Gujarat, Dhault, and Kapur di Giri, were all engraved at the same time. The operation must have been spread over some years, and it is not likely that it was subsequent to the date of their reputed author, if he ever had a real existence. It seems, however, not improbable, that the rulers of the several countries, or influential religious persons, adopted the shadow of a name, to give authority to the promulgation of edicts intended to reform the immoral practices of the people, and for that purpose repeated documents which had acquired popular eclebrity in some particular locality not yet ascertained.

From these [and other] considerations, I have been compelled to withhold my unqualified assent to the confident opinions that have been entertained respecting the object and origin of the inscriptions. Without denying the possibility of their being intended to disseminate Buddhism, and their emanating from the Maurya prince Asoka, there are difficulties in the way of both conclusions, which, to say the least, render such an attribution extremely uncertain.

[ I have allowed Prof. Wilson to state his doubts and difficulties at greater length than I should have conceded to him, had I not been prepared to contest his leading inferences.

I do not, however, design to enter upon any critical examination of the minor evidences and coincidences the Professor has sought to reconcile; as, with a doubtful text, an avowedly imperfect interpretation, with one of the historical names only partially legible and dates conflicting inter se, the most elaborate solution could not but fail to prove unsatisfactory. And further, I am disposed to accept, with added force, all that portion of the Professor's deductions which implies crass ignorance of Syrian and Grecian events on the part of the compilers of Still, there are some obvious facts upon Piyadasi's Edicts. which we may fairly speculate. It is clear that Antiochus, as spoken of in these inscriptions, was, at the moment of their composition, the most prominent personage of the western world within the ken of the Indian court. That Antiochus essis is the sovereign alluded to many miscellaneous items of evidence, now available, tend to show. These points being admitted, it would seem to follow, from the expressions made use of in the second tablet, that the defection of the Bactrians under Diodotus-assigned to 250, B.C.-had not, up to this time, developed itself. The allusion to the four kings it is less easy to explain, nor is it obvious why that particular number should have been selected. As the text does not enable us to say what position these kings held in reference to the more influential Antiochus, speculations on this head must, of course, be next to futile. Certainly the satisfactory explanation of the coincidences of the given names, with any combination of the thenexisting monarchical distributions, remains to be accomplished: whether the record aimed at a mere vague selection of the more generally known Greek names to complete the list, or whether, as is just possible, there was some indefinite remembrance of the quadruple alliance (311, B.C.), of which Seleucus was the subordinate confederate and local representative during his Indian expedition, and of the eastern rights and titles of which Antiochus became the apparent heritor, it would be rash to assert; but it is clear that the designations of two of the parties to this league open the list, and whether Magas represents the Cyrenian, or some other of the name, or stands as the curtailed corruption of that of Lysimachus, while Ali Kasunari may

<sup>1</sup> Masson's eye-copy of the Kapur di Giri inscription may be variously read, Ali Kasanari, Ali Kasadari, or, doubtfully, Ali Kahasanari. The initial letter is very uncertain, and might almost be read as a G. The third letter differs materially from the ordinary Bh's, and must either be the simple K of Court's copy or some compound of Sh, under Masson's representation.

chance to do duty for Alexander, Cassander, or some living potentate whose cognomen had but lately reached Indian ears, we need scarcely stop to inquire.

In his first paper on the Girnár, Dhaulí, and Kapur di Giri edicts, Prof. Wilson expressed an opinion that, 'although the tenor of the inscriptions was not incompatible with a leaning to the religion of Buddha, yet the total absence of any reference to the peculiarities of the Buddhist system, left some uncertainty with regard to the actual creed of the raja, and his intimate connection with the followers of Buddha.'

In a subsequent article on the Bhabra inscription the Professor frankly admits that, 'although the text is not without its difficulties, yet there is enough sufficiently indisputable to establish the fact, that Priyadasi, whoever he may have been, was a follower of Buddha.'1 Our leading Orientalist, it will be seen, still hesitates, therefore, to admit the identity of Privadasi and Asoka. With all possible deference to so high an authority, I am bound to avow that I see no difficulty whatever in the concession. We may stop

Jour. Roy. As, Soc.', vol. xii. (1849), cited nearly in extense above.
 Jour. Roy. As. Soc.', vol. xvii. (1856), p. 357. Supra cit.
 The inscription opens thus: 'Priyadasi, the king, to the venerable assembly of Magadha, commands the infliction of little pain, and indulgence to animals. It is verily known, I proclaim, to what extent my respect and favor (are placed) in Buddha, in the law, and in the assembly. Whatsoever (words) have been spoken by the divine Buddha, they have been well said,' etc.—See also 'Jour. As. Soc. Beng.' 1840.—Lassen 'Indische Alt.' ii, 221. [I annex to these notes on the Bhabra inscriptions some interesting speculations of Bournouf's, as to the nature of the monument itself, and the probable purpose for which it was shaped.] 'C'est, ainsi que l'a bien vu M. Kittoe, une missive adressée par le roi Piyadasi à l'Assemblée des Religieux réunis à Pâtaliputra, capitale du Magadha, pour la suppression des schismes qui s'étaient élevés parmi les Religieux buddhistes, assemblée qui, selon le Mahavamsa, cut lieu la dix-septième année du règne d'Açèka. La forme est en elle-même très-remarquable. L'inscription, en effet, n'est pas La forme est en elle-même très-remarquable. L'inscription, en effet, n'est pas gravée comme les autres monuments de ce genre qui portent le nom de Piyadasi, seit sur une colonne monolithe, seit sur la surface d'un rocher adhérant aux fiancs d'une montagne. Elle est écrite, et très-soigneusement, sur un bloc détaché de granit qui n'est ni d'un volume ni d'un poids considérable, n'ayant que deux pieds Anglais sur deux de ses dimensions, et un pied et demi sur la troisième. Ce bloc, de forme irrégulière, peut être aisément transporté. . . . C'est une lettre que le roi a fait graver sur la pierre avec l'intention avouée d'assurer la durée de cette expression si claire de son orthodoxie, peut-être aussi avec celle de faire transporter facilement et sûrement cette singulière missive dans les diverses parties de l'Inde où se trouvnient des Religieux . . . l'inscription est écrite dans l'ancien dialecte Mâgadhî.'—'Le Lotus de la bonne Loi,' p. 727, 728.

short of absolute and definite proof, that Asoka enunciated his edicts under the designation of Priyadasi, 'the beloved of the gods;' but all legitimate induction tends to justify the association, which is contested by no other inquirer.' To assert that the edicts themselves do not accord in spirit with the exclusive intolerance attributed to Asoka by his Buddhist successors, is merely to show that they misrepresented his aims and desires in this respect, as they palpably misinterpreted and altered many of the original tenets of the religion itself.

As a fitting conclusion to these commentaries, I append Prof. Wilson's remarks on the language of the edicts:—]

The language itself is a kind of Pali, offering for the greater portion of the words forms analogous to those which are modelled by the rules of the Pali grammar still in use. There are, however, many differences, some of which arise from a closer adherence to Sanskrit, others from possible local peculiarities, indicating a vet unsettled state of the language. It is observed by Mr. Prinsep, when speaking of the Lat inscriptions, "The language differs from every existing written idiom, and is as it were intermediate between the Sanskrit and the Pall," The nouns and particles in general follow the Pali structure; the verbs are more frequently nearer to the Sanskrit forms; but in neither, any more than in grammotical Pali, is there any great dissimilarity from Sanskrit. It is curious that the Kapur di Giri inscription departs less from the Sanskrit than the others, retaining some compound consonants, as pr in priva instead of Piya; and having the representatives of the three sibilants of the Devanagari alphabet, while the others, as in Palf, have but one sibilant: on the other hand, the Kapur di Giri inscription omits the vowels to a much greater extent, and rarely distinguishes between the long and short vowels, peculiarities perhaps not unconnected with the Semitic character of its alphabet.

The exact determination of the differences and agreements of the inscriptions with Pali on the one hand, and Sanskrit on the other, would require a laborious analysis of the whole, and would be scarcely worth the pains, as the differences from either would, no doubt, prove to be comparatively few and unimportant, and we may be content to consider the language as Pali, not yet perfected in its grammatical structure, and deviating in no important respect from Sanskrit. Pali is the language of the writings of the Buddhists of Ava, Siam, and Ceylon; therefore it is concluded it was the language of the Buddhists of Upper India, when the inscriptions were engraved, and consequently they are of Buddhist origin. This, however, admits of question; for although the Buddhist authorities assert that Sakya Sinha and his successors taught in Pali, and that a Pali grammar was compiled in his day; yet, on

Turnour, 'Jour. As. Soc. Beng.,' vi. 1050, and vii. 930; Lassen, ii. 271;
 Durnouf, i. 633, ii. 778; Cunningham, 'Bhilsa Topes,' 108; Sykes, 'Jour. Roy. As.
 Boc.,' vi. 460; Müller, 'Baddhism and Buddhist Pilgrims,' p. 23.

the other hand they affirm, that the doctrines of Buddha were long taught orally only, and were not committed to writing for four centuries after his death, or until n.c. 153, a date, no doubt, subsequent to that of the inscriptions. In fact, the principal authorities of the Cingalese Buddhists appear to have existed in Cingalese, and to have been translated into Palí only in the fifth century after Christ.

According to M. Burnouf and Mr. Hodgson, the earliest Buddhist writings were not Palf but Sanskrit, and they were translated by the Northern Buddhists into their own languages, Mongol and Tibetan. It does not appear that they have any Pali The Chinese have obtained their writings from both quarters, and they probably have Pálí works brought from Ava or Ceylon. They have also, according to M. Burnouf, translations of the same Sanskrit works that are known in the North. It is by no means established, therefore, that Pall was the sacred language of the Buddhists at the period of the inscriptions, and its use constitutes no conclusive proof of their Buddhist origin. It seems more likely that it was adopted as being the spoken language of that part of India where Piyadasi resided, and was selected for his edicts, that they might be intelligible to the people. Hence, also, the employment of different alphabets, that of Kapur di Giri being the alphabet current in Affghanistan and Bactria, as we know from the Greece-Bactrian coins. The use of the provincial or local alphabet was evidently designed for the convenience of those to whom it was familiar, while the ancient form of the Devanagari was that employed in Hindustan as being there in general use. The popular currency of the language, admitting that it might have been the spoken dialect of the north-west of India, would be more likely to provent, than to recommend its use as a 'sacred' language, and its being applied to such a purpose by the Southern Buddhists was in some degree probably owing to their being as a people ignorant of it, and it would then assume in their eyes a sanctity which as a spoken dialoct it was not likely to possess. At the same time, we can scarcely suppose that the language of the inscriptions was understood in all the countries where they have been discovered, beyond the Indus, at Dihlf, in Behnr, in Orissa, and Gujarat, where we know that very different dialects, however largely borrowing from a common source, at present prevail. Neither is it likely that edicts intended to regulate the moral conduct of the people at large should have been intelligible only to Buddhist priests, or should have been perpetuated on pillars and rocks solely for their edification. We may therefore recognise it as an actually existent form of speech in some part of India, and might admit the testimony of its origin given by the Buddhists themselves-by whom it is always identified with the language of Magudha or Behar, the scene of Sakya Sinha's first teaching-but that there are several differences between it and the Magadhi, as laid down in Prakrit grammars, and as it occurs in Jain writings. It is, as Messrs. Burnouf and Lassen remark, still nearer to Sanskrit,2 and may have prevailed more to the north than Behar, or in the upper part of the Doab, and in the Panjab, being more analogous to the Sauraseni dialect, the language of Mathura and Dihli, although not differing from the dialect of Behar to such an extent as not to be intelligible to those to whom Sakya and his successors addressed themselves. The language of the inscriptions, then, although necessarily that of their date, and probably that in which the first propagators of Buddhism expounded their doctrines, seems to have been rather the spoken language of the people in Upper India, than a form of speech peculiar to a

¹ Turnour's 'Introduction to the Mahawanso,' xxii., Så Mågadhi mula bhåsa.
² Essai sur le Pålí, p. 187, 'La Palie était presque identique à l'idiome sacré des Brahmanes, parce qu'elle en dérivait immédiatement.'

class of religionists, or a sacred language, and its use in the edicts of Piyadasi, although not incompatible with their Buddhist origin, cannot be accepted as a conclusive proof that they originated from any peculiar form of religious belief.<sup>1</sup>

[In a subsequent paper 'on Buddha and Buddhism' (J.R.A.S., xvi. 229), Professor Wilson enters more comprehensively into the linguistic question touched upon in the above note: the following extracts will put the reader in possession of that author's present view in regard to the comparative antiquity of the use of Sanskrit and Pálí' in the Buddhist Scriptures:—

The great body of the Buddhist writings consists avowedly of translations; the Tibetan, Mongolian, Chinese, Cingalese, Burman, and Siamese books, are all deelaredly translations of works written in the language of India-that which is commouly called Fon or more correctly Fan-lan-mo, 'or the language of the Brahmans;' and then comes the question, to what language does that term apply? Does it mean Sanskrit, or does it mean Pali, involving also the question of the priority and originality of the works written in those languages respectively; the Sanskrit works as they have come into our hands being found almost exclusively in Nepal, those in Pali being obtained chiefly from Ceylon and Ava. Until very lately, the language designated by the Chinese Fast was enveloped in some uncertainty. . . . The mystery, however, is now cleared up. In the life and travels of Hwan Tsang, written by two of his scholars and translated from the Chinese by M. Julien, the matter is placed beyond all dispute by the description and by the examples which the Chinese traveller gives of the construction of the Fon language, in which he was himself a proficient, . . We learn from him. . . . All this is Sanskrit, and what is more to the point, it is not Magadhi, the proper designation of the dialect termed in the south, Pali. . . . Hwan Tsang also correctly adds that the grammar in use in India, in his time, was the work of a Brahman of the north, a native of Tula or Salatula, named Po-mi-ni, or Panini, the well-known Sanskrit grammarian. . . . The Buddhist authorities of India proper, then, were undeniably Sanskrit; those of Ceylon might have been Pali or Magadhi; were they synchronous with the Sanskrit books, or were they older, or were they younger, more ancient, or more modern? . . . We may be satisfied, therefore, that the principal Sanskrit authorities which we still possess were composed by the beginning of the Christian era at least; how much earlier is less easily determined.

We may consider it, then, established upon the most probable evidence, that the chief Sanskrit authorities of the Buddhists still in our possession were written, at the latest, from a century and a half before, to as much after, the era of Christianity.

Now what is the case with the Palf authorities of the south? . . The principal Palf works of the south, are, therefore, of a period considerably subsequent to the Sanskrit Buddhistical writings of India proper, and date only from the fifth century after Christ.

Pals, means—original text, regularity.—Maha. Introd. xxii. vol. 11.

Professor Max Müller seems to concur in these deductions, judging from his remark:—

'After Buddhism had been introduced into China, the first care of its teachers was to translate the sacred works from the Sanskrit, in which they were originally written, into Chinese.'—'Buddhism and Buddhist Pilgrims,' p. 24. London, 1857.

Col. Sykes, however, I observe, still considers that he has evidence to show that 'the books taken from India to China by the Chinese travellers between the fourth and seventh centuries were equally in Pálí' (Times, May 21, 1857), basing his argument to that end upon M. Gutzlaff's catalogue of 'Chinese Buddhistical Works,' published in vol. ix. of the 'Jour. Roy. As. Soc.', p. 199 (1848).



## XVIII.—RÉSUMÉ OF INDIAN PÁLÍ ALPHABETS.

[In continuation of the subject treated of in the supplement to Art. XVII.; p. 8, I extract the substance of Prinsep's 'Completion of the Pálí Alphabet,' which the decipherment of the Girnár text of the edicts of Asoka enabled him to verify.]

First, however, I must take a review of the Girnár alphabet, for it is evident that it contains many additions to the more simple elements of the pillars. These additions, to which only I have time to allude, will be found to complete the alphabet to the existing standard of the Pálí of Ceylon.

Of other letters made known by the Girnár tablets, we may notice first in order the t. or gh, which can no longer be denied a place, or be confounded with any other letter, because it now occurs in the well known word gharistáni (S. grihastáni), and in megha, ghara, gháta, etc., of the Kalinga and Sainhadri inscriptions. These words, it must be observed, occur only in those tablets of the Katak inscription wherein the letter I is used, and which so far resemble in dialect those of Girnár. The orthography of grihastáni on the pillars is giritháni. It does not therefore follow necessarily, though there is every probability thereof, that the g is never used for gh; but when we find the aspirate present in other words of the same monuments, such as ghanti, sanghathasi, etc., we are bound not unnecessarily to aspirate the simple g, where it can be read without doing so.

The nasal of the first class of consonants, or gutterals, has not been yet recovered, because its place is generally supplied by the anuswara; but in one or two places I think the  $\mathbf{w}$  may be traced in its primitive form of  $\mathbf{C}$ : at any rate it may be safely constructed so, from the analogy of the form in No. 2 alphabet  $\mathbf{S}$  also found on the coins in the name Simha vikrama (written sometimes singha), and from the more modern form of the Tibetan  $\mathbf{S}$  ng.

The letter it s. is of rare occurrence, even in the Sanskrit. It is not therefore to be wondered at, that we should be tardy of discovering it in the ancient alphabet. Yet in Pálí this letter takes the place of the Sanskrit w in madhya, madhyama, 'middle,' and perhaps of rj in nirita and of rdy and ryy and other similar compounds which in pronunciation assimilate to it; and it is thus more likely to be found in a Pálí than a Sanskrit monument. On my first review of the pillar alphabet, I was inclined to look upon the letter " as jk, from its occurrence in the word gr'g majhima, coupled with ukasa and gergya, domestics and ascetics, but it seemed better explained by ri in other places. A similar expression in one of the Girnar tablets again leads me to consider it as jh, viz.: 'sankhilena, majnamena, vistitena,' where the central word is written BFEL both in the Girnar and in the Dhauli versions of the concluding paragraph. Again, in the pillars it is generally inflected with the i or the d vowel mark, which could not be the case with ri; and lastly, it bears considerable affinity to the Bengali & jk which also resembles the ri of the same alphabet; I therefore now pronounce P without hesitation to be a jh; and I must modify former readings accordingly.1

The n of the second class, or palatials, is an acquisition upon which there is no room to doubt. It is a peculiarity in the Pálí language that this letter, which has the pronunciation of ny, both supplies the place of the Sanskrit compound letter jn in such words as rájnak ()

¹ This it is not difficult to accomplish: ex. gr. in the western tablet of the Feroz lat, nasentan nijhipoyita dancendohanti, may be Sanskritized as follows: नार्शतिनिधा पाधित्या दार्ग दास्यन्ति, 'expelling the murderer (from the town or community) they shall give him an alms.' And in the edict regarding animals,—ta se sajive nojhipoyitaviye—'such while life remains shall not be abandoned,' उन्हापियत्यः and, in the last tablet, for dhamma niyame nijhayita bhuye, rend निर्वत्यभवेत 'the rules of dharma shall be invincible.'

of a prince, and with dina, 'order'—and of et, or ny in such words as wear: anyatah, else, wearff anyani, others; and in weard manyate, Pali manuate, deems. Now these and many other examples occur most opportunely in the Girnar inscriptions—the letter h, with the necessary vowel inflections h ne, h, ná, or h no, being invariably employed in all such cases; as in the sixth tablet above quoted, what want anyata agens parakamens: whereas in the Dihlí pillars the word anata, for instance, is written which annata, with the dental n, the only one there made known to us, doubled by the anuswars.

The next form of s, belonging to the cerebral series, has already been made known to us from the Sainhadri cave inscriptions, I; and the modern derivative forms were on that occasion described (see page 1045 of volume vi.) In the present inscription this n invariably follows the letter r, as in Sanskrit; ex. gr. D·Sell- Dhammacharanam the progress of religion. The vowel affixes are united to the central perpendicular stroke as III no, ná, no. A few words written in Sanskrit with the dental n, are found in the inscription written with I, as janasa, dasanam (7th and 8th tab.) and the same holds good of the grammatical Pálí of books. It should be remembered that, in the regular Prákrit, this is the only n which ever stands singly in a word.

The only letter of the labial series which was yet wanting to us, the ph, is most fortunately recovered through the indubitable expression málání cha phalání cha in the second tablet of Girnár-" both roots and fruits'-written gald bald. In the letter b we at once perceive the prototype of the ph of No. 2, and the 4 of the Tibetan alphabet: and we see the reason why this was departed from in the Nagari form, To, by turning the stroke outward, lest by turning inwards it should be confounded with the w or sh, a letter unknown in our old alphabet. With reference to my former remark on the duplication of alphabetic forms to produce the aspirates, it may be adduced as an additional argument for such an assumption that in the oldest of three plates from Kaira with copies of which I have been lately favoured by Dr. A. Burn, the ph of the word phata is twice written pp in lieu of ph, which is the augmented or aspirated form used in the other plates, and which is more consistent with the original type now disclosed to our knowledge.

Of the bh I would merely take this opportunity of noticing that I have discovered the period and cause of the two very opposite forms of this letter which are found in later alphabets, as for instance the Mahratta bh and the Tibetan bh (which agrees with the Devanágari or Kutila of the 10th century) and have proved them both to descend from the original  $a^{\mu}$ ; the Mahratta may be said to follow naturally

from the Sainhadri form; the other I have traced on the Saurashtra coins of Skanda and Kumara Gupta, where sometimes the one and sometimes the other form is employed, the latter being the natural course followed by the pen in imitating the sculptured letter #, beginning at the top, viz.: A, whence would gradually follow A, and with the headstroke, common to all the modern characters.

The Pálí contains but one s. We cannot, therefore, expect to find in our ancient alphabet the prototype of either the Sanskrit **n** or **u**. Of these letters I only notice the early forms, because I have inserted them in the accompanying lithographed plate. The modern form of **u** would seem to be derived from the **u** of the Samudragupta, or No. 2 alphabet, where again it might be presumed that it was introduced as a trifling modification of the letter **u**, or s,—in fact, by closing the outer stroke or doing the same thing to this as was done to the p, to have the effect of duplication or aspiration. Or, it may be more proper to consider it a written modification of the more ancient form b found on the copper-plate grants of the third century dug up in the Gujarát peninsula, whence the transition is more evident and palpable to the various Pálí and Sinhalese forms, the Cashmere form and even the modern Nágarí and Bengálí.

It is not so easy to trace the origin of the táliba sha, W, in the old alphabet, but there is plausible reason to suppose that this was originally merely the murdina or cerebral sq. turned in an opposite direction, invented to denote another modification of the sibilant required in the refinement of the Sanskrit alphabet. In the oldest Gujarátí plates, these are written with simple linear marks in the middle, and exactly the same structure is retained in the square Pálí alphabet or stone letter of Barma, except that the stroke in the centre is contracted into a dot; further, they are merely rounded in the modern Burmese for the facility of writing. In no other alphabets that I know of are the analogies to the original type so faithfully preserved as to shew that these two sibilants were originally the same letter reversed in position, a mode frequently adopted, as I have had occasion to notice before, in Indian alphabets, to represent slight modifications in sound (see vol. vi. p. 475-6.)

The most ancient Sanskrit form, however, of the taliba sh is one I have just discovered on a genuine inscription of the time of Chandragupta [Sah Inscription]. This type is evidently the original of the form so common on early Hindu coins and inscriptions, whence are directly descended the Tibetan , the Bengali , and the modern Nagari W, which heretofore presented a kind of anomaly in the derivation of our alphabetical symbols.

Having thus recovered the complete, and, as I consider it, the primeval alphabet of the Indian languages, I have arranged in the accompanying plate the changes each letter has undergone in successive centuries, as deduced from absolute records on copper or stone. The table furnishes a curious species of palæographic chronometer, by which any ancient monument may be assigned with considerable accuracy to the period at which it was written, even though it possess no actual date.

I begin with the sixth century before the Christian era, because I suppose that the alphabet which we possess, as used by the Buddhists of a couple of centuries later, was that in which their sacred works had been written by the contemporaries of Buddha himself, who died in the year 543 B.C.

What in some measure confirms this hypothesis is, that the Sanskrit character of the third century before Christ (of which I have introduced a specimen in the plate from the genuine document above alluded to), differs only so much from the original form as the habits of a class of writers distinct in religion and more refined in language might naturally introduce;—just as we afterwards find an equal degree of modification from the type of Asoka's time, in the Sanskrit alphabet of five centuries later, on the pillars.

The Asoka alphabet (the Sanskrit one) agrees very closely with that of our Sauráshtra coins, which may thence be pronounced to be anterior to the Gupta series. The Gujarát plates, dated in the third century of the Samvat era, differ but little from the Allahábád pillar or Samudragupta inscription, but that little is all in favour of their superior antiquity.

Of the more recent alphabets it is unnecessary to say anything. The Tibetan is acknowledged to be of the seventh century. The Kutila alphabet is taken from the inscription sent down in facsimile by Col. Stacy from Bareli;—we learn thence that the artist was of Kanauj; and we see that the Bengálí, which was drawn from the same focus of learning nearly a century afterwards, does not differ more from it than the modifications it has undergone since it was domiciled in the lower provinces will explain;—indeed, all old Sanskrit inscriptions from Benáres to Katak differ only from the Kutila type in having the triangular loop  $\overline{\bullet}$ , instead of the round one  $\overline{\bullet}$ .

A hundred other modifications of the primitive character might be easily introduced were I to travel southward or to cross to Ava or Ceylon; but I purposely avoid swelling the table, and include only those epochas of the Indian alphabet which can now be proved from undeniable monuments. On a former occasion, the Amaravati, Hala Canara, and Talinga alphabets were traced to the Gupta as their prototype, and thus might others be deduced; but another opportunity must be sought of placing the whole in a comprehensive table.

In conclusion, I may again regret that our printers did not take for their standard the form that would have served to blend the Bengálí and the Hindí into a common system!

[Prinsep's observations introductory to his Chronological

<sup>1 &#</sup>x27;Jour. As. Soc., Beng.', vol. vi., p. 219 (March, 1837),





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Table of Alphabets appear to have been designedly brief, as the several series had already been freely examined and descanted upon in the occasional Essays which had from time to time been devoted to the independent illustration of each. The definition of almost every letter was now an accepted fact, and under the treatment of Prinsep's practised eye and ready hand, each form might be compared in its multiple transitions and ramifications, by the veriest tyro in Indian Palæography. I have copied, literatim—in pl. xxxvii., xxxviii. -his original synopsis; but as his labours in elucidation of these, and other cognate alphabets, were detached and scattered over many volumes and numbers of the Journal he so long and efficiently edited, I have taken advantage of the facilities afforded by the imitative faculty of our German neighbours, who have reproduced, in movable types, these and some further varieties of the local characters first deciphered by my author,to introduce into a printed table many of the older forms omitted in the lithograph; and I have further profited by the progress of type-founding, to add to the general series certain provincial alphabets, which illustrate the literal changes incident to independent naturalization, as well as those due to epochal departure from the parent stock.

It will be seen from this observation, that I have ventured to differ from my elsewhere usually accepted authority; but in this case, his unvarying frankness and candour have of themselves paved the way for my justification, and I doubt not that, had his intellect been spared to us, he would himself have been prompt to reduce to a more consistent and mature theory, the imperfect hypothesis somewhat hastily enunciated on the initiatory publication of these fac-similes.

The general subject of the rise and transitional development of Indian alphabets spreads itself over various sections of research, and requires to be considered from different points of view, the more prominent of which I will endeavour to recapitulate as concisely as possible. I. Regarding the probable date of the earliest use of the type of character, of which Asoka's edicts present us with the first extant example, Prinsep hazarded an opinion that two centuries of anterior currency might fairly be assigned to that style of writing. This idea pre-supposed somewhat of an exclusively sacred character, as pertaining to the alphabet; but by no means implied that the literal series did not pre-exist in an earlier or less perfect form. A conjectural limit of this description may of course be indefinitely extended or contracted, but I myself should be disposed to enlarge considerably the period of the previous culture of so perfect and widely-spread a system of alphabetical expression.

II. As respects the derivation of the literal series, Prinsep had clearly a leaning towards associating it with the Greek, grounded upon the similarity and almost identity of some of the forms of each, the phonetic values even of which fell into appropriate accord. That these similitudes exist there can be no doubt, but not in sufficient numbers or degree to authorize an inference that the one system borrowed directly from the other. Prof. Weber, following out Prinsep's idea in another direction, has sought to establish a Phænician origin for the Indian alphabets.<sup>2</sup> This theory I regard as altogether untenable, for we not only have to get rid of the inversion of the direction of the writing—sufficiently intelligible in the case of the Greek derivative from that stock—but we have to concede a much larger amount of faith to fanciful identities of form; and lastly, we have to place this excellently contrived alphabet in juxtaposition

\* Ueber den Semitischen Ursprung des indischen Alphabetes.— Zeitschrift,\* 1856, p. 389.

¹ Huen Thsang gives the following account of the origin and spread of the Indian alphabet:—"Les caractères de l'écriture ont été inventés par le dieu Fan (Brahmâ) et, depuis l'origine, leur forme s'est transmise de siècle en siècle. Elle se compose de quarante-sept signes, qui s'assemblent et se combinent suivant l'objet ou la chose qu'on veut exprimer. Elle s'est répandue et s'est divisée en diverses branches. Sa source, s'étant élargie par degrés, elle s'est accommodée aux usages des pays et nux besoins des hommes, et n'a éprouvé que de légères modifications. En général, elle ne s'est pas sensiblement écartée de son origine. C'est surtout dans l'Inde centrale qu'elle est nette et correcte."—' Mémoires, etc.,' p. 72.

and contrast with a system of writing manifestly claiming a quasi-Semitic parentage, but as imperfect and ill-adapted for the expression of Indian languages as it is possible to conceive, which we find in concurrent use in the contiguous provinces of Northern India. Certainly, to judge by internal evidence, the Pálí alphabet of Asoka's day bears every impress of indigenous organization and local maturation under the special needs and requirements of the speech it was designed to convey. Though, amid the marvels that are daily coming to light in regard to the march of languages and the varieties of the symbols employed to record the ancient tongues, it might be possible to concede so much of identity to the two sets of charácters as a common but indefinitely remote starting point might be held to imply.

III. Was the Pálí alphabet sacred or profane? classic or vernacular? monumental or popular? The answer to these queries must, I think, be decidedly against its exclusive devotion to the former, in any case; it will be safer to say that, up to a certain period, it was employed both for one and the other, and stood as the sole medium of graphic communication. This primitive character may well have proved sufficient for all purposes of record, so long as the language it was called upon to embody remained as simple as that for expression of which we may suppose it to have been originally designed

<sup>&</sup>lt;sup>1</sup> [ M. Barthélmy St. Hilaire, in a review ('Journal des Savants,' January, 1857), of the valuable work of M. E. Renan, on the Semitic Languages (Paris, 1855), enters into an examination of the relative claims to priority of the Indian and Phoenician alphabets. His remarks on the remote antiquity and independent and spoutaneous elaboration of the Indian alphabet are sound, but the general argument is marred by a want of due discrimination between the Páli and Sanskrit influences, and is deficient in all reference to the co-existent Semitic system of writing of the northern provinces. Though I do not concur in any conclusion that one alphabet must necessarily have been derived from the other, I append M. St. Hilaire's opinion on the question as it stands between the two:—"Je ne vois pas qu'il repugne à la raison que le système le plus parfait de l'alphabet soit aussi le plus ancien. L'alphabet sémitique n'est pas précisément plus simple, quoique moitié plus court; il est, à vrai dire, moins complet. Pour ma part, je comprends mieux les Sémites recevant de troisième ou quatrième main l'alphabet indien, et l'adaptant à leur usage, en le réduisant de moitié et en le mutilant, que je ne comprends les Indiens recevant cet alphabet informe et confus et le portant à la perfection que nous savons.'—p. 52.]

and adapted. On the introduction of the Sanskrit element, it was necessarily subjected to previously-needless combinations, and under this and other processes perhaps lost some of the stiffness of outline, which it may, nevertheless, have retained together with its original literal simplicity among the vulgar, even in the presence of an improved style of writing, suited for more polished literature; as in the existing orthography of Hindi, contrasted with the elaboration of Sanskrit alphabetical definitions. Prinsep

Major Cunningham speaks of 'the extremely rare use of compound letters' in the Buddhist legends engraved on the Bhilsa Topes. He remarks, 'only three instances occur throughout all these inscriptions; and they are certainly exceptions to the common practice of Asoka's ago, which adhered to the simplest Pali forms.'— 'Bhilsa Topes,' p. 268.

Bhilsa Topes,' p. 268.

I have elsewhere noticed certain evidences benring on this question, which I may append in further illustration of my present argument]: 'I imagine it must be conceded, whether on the indications afforded by inscriptions, coins, or Buddhist relies, that the ancient Pali or Magadhi alphabet had once a very extended currency, and likewise that for a lengthened period it retained its separate identity. It occurs in Asoka's edicts at Dihli,' Allahábád, Matin, Bakra, Dhauli, and Girnár; its appearance in these several localities' would, prima facie, imply, either that it was intelligible to the people at large throughout the circle embraced within these geographical boundaries, or that it was the recognized sacred alphabet of Buddhism: opposed entirely to the latter supposition is the departure from its use in the Kapur di Giri text of the edict itself, and the modification the language is seen to have been subjected to in some of the Pali transcripts, to meet apparently the local dialects of each site.' [I do not imply from this that the edicts were ordinarily designed to be within reach of the vision of the people, as was the case with the Greek tables, even if it was expected that the literary cultivation of the population at large was sufficient to create many readers.] "On coins, the characters can scarcely be thought to hold any religious signification, but the available medallic testimony contributes largely to the inference that these characters formed the ordinary medium of record in the majority of the states included within the limits above adverted to. In this alphabet exclusively are expressed the legends of numerous ndverted to. In this alphabet exclusively are expressed the legends of numerous series of coins of purely local type, its characters are found associated on the one part with the Greek of Agathocles and Pantaleon, and its phonetic signs are conjoined with counterpart Arian legends on certain classes of the Behat coins. The Bud-

 Of the two stone pillars at Dihli, one was moved down from near Khizrabad, at the foot of the Himalayas-the other was taken from Mirat- Jour, Arch. Soc.

at the foot of the Himalayas—the other was taken from Mirat—' Jour, Arch. Soc. Delhi,' p. 70, 1850 [vol. i., p. 324.]

'Other inscriptions in this character occur at—1. Sanchi—' Jour, As. Soc. Beng.', vol. vi., pl. xxvii., p. 461, and vol. vii. pl. lxxiii., p. 562; 2. Gya—Caves, 'Jour. As. Soc. Beng.', vol. vi., pl. xxv., Nos. 2 and 3, p. 676; these are of the epoch of Dasaratha, who followed Suyasa, the immediate successor of Asoka! 3. Katak—Udayagiri Caves, 'Jour. As. Soc. Beng.', vol. vi., pl. liv., p. 1072; 4. Katak—Khandagiri Rock, 'Jour. As. Soc. Beng.', vol. vi., pl. lviii., p. 1080. And we may now add a but slightly modified form of writing as discovered in the Mehentélé inscription in Ceylon. 'Jour. Roy. As. Soc.', vol. xiii., p. 175.

'Jour. As. Soc., Beng.', vol. iv., pl. x. and xxv., and vol. vii., pl. lx. and lxi.

'Jour. As. Soc., Beng.', vol. v., pl. xxxv., p. 8 and 9; 'Ariana Antiqua,' pl. vi., pp. 7, 8, 9, and 11.

'Jour. As. Soc., Beng.', vol. vii., pl. xxxii. [i. 203.]

himself has originated the inquiry as to how much a change of alphabetical symbols might be incident to the use of a more perfect language as compared with the necessities of the local Pálí: and to this I am disposed to attach even more weight than he apparently contemplated; the leading conception was suggested to him by the advance displayed in this direction by the Sáh inscription at Girnár, which, because it contained the name of Asoka, he conceived should be attributed to the reign of that monarch. He was content, therefore, to accept this system of writing as absolutely contemporaneous with that employed in the public edicts of the early patron of Buddhism. However, we need not now claim so distinct a concession as this, as Asoka's name is only made use of in the subsequent monument, as a whilom benefactor in a similar cause, for which the Sah king claims credit at a later day.

IV. Among other causes that are liable to have affected the march of alphabetical divergence from the one fixed model, may be noted the cursive departure from the older form, which though not exclusively monumental, was evidently better suited for lapidary purposes than for facility and rapidity of expression by the amanuensis; and, under this aspect, there would arise

dhist relies do little towards elucidating the expansive spread of this style of writing; but—if rightly interpreted—they illustrate in a striking manner the antiquity of its ordinary employment in its even then fixed form.' [This inference, however, does not necessarily militate against my conclusion that, at a subsequent period, and in exceptional localities, the Pali language and the Pali letters did not become the special sectarian vehicles of the Buddhist faith, as opposed to the Sanskrit tongue and its more copious alphabet, whose use was affected by the Brahmans.] Dr. Stevenson remarks, in speaking of the Nasik cave inscriptions, 'On the whole, we find that Brahmans and Buddhists, in these early days of our era, lived in peace with one another, and were both favoured and protected by the reigning sovereigns; and that, among the former, the Sanskrit language was used in writing, and the Prakrit by the latter; the two languages, probably, holding the same place to one another that the Sanskrit and the vernaculars do at present.'—'Jour. Bomb. Br. Roy. As. Soo.', July, 1853, p. 41.]

1 [In my last paper on this subject I remarked, 'We have evidence, in sufficient dhist relies do little towards elucidating the expansive spread of this style of writing; a

<sup>1</sup> [In my last paper on this subject I remarked, 'We have evidence, in sufficient abundance, to prove that the eastern nations often availed themselves of a cursive hand, in common with the more formal character reserved for inscriptions. These would each be naturally affected, in the ultimate determination of forms—by the material which had to receive the writing.

\*Thus, the straight wedge-shaped elements of the cunciform alphabet\* were

<sup>&#</sup>x27; Jour. Roy. As. Soc.', vol. xiii., p. 108; 'Bhilsa Topes,' p. 299, etc.
' Layard, 'Discoveries,' etc., 346 and 601, etc., 'Jour. Bomb. As. Soc.', vol. xvi. p. 215.

a still more obcious reason for the rounding off of angularities as the complex orthography of the Sanskrit gained head upon the simple letters of the local Pálí.

singularly well fitted for easy expression on tablets of Babylonian clay, and equally suited to rock inscriptions, while the written hand, executed only on a smooth surface, presented no difficulties to any series of curves or complicated lines. In surface, presented no dimensions to any series of curves or complicated lines. In addition to leather and other materials, the ancient Persians, we also learn, wrote upon The (Birch-bark). The Indians, we know, adapted this substance to the same uses, and possibly the Indian Vedas are indebted for their preservation to this very material; whether its employment was limited to the population whose dialects were expressed in the Arian character we have no means of saying, but in all probability, if the Northern Indian races knew of its use, the Magadhis would not have remained long deprived of it, or some suitable substitute; that they also wrote with ink is amply established by the discovery of letters so written on the relic caskets at Sanchi.

Since the a ove was written, I have met with a most apposite illustration of the justice of my opening remark, in the shape of a Babylonian clay-tablet-now in the British Museum—of about 600 n.c., which is impressed with cuneiform characters on the one face, and inscribed with Phomician letters on the other. The Babylonian character is not very perfect, but the Phomician has evidently been difficult to execute, in comparison to the simple lines of the associate inscription; the curves execute, in comparison to the simple times of the associate inscription; the curves of the letters, and the depth it was necessary to give the lines, to ensure permanence, have clearly puzzled the stile of the artist, whose knowledge of, and aptitude in, the formation of the letters, are otherwise sufficiently apparent. While adverting to these subjects, I would further draw attention to the double system of writing in use in ancient times, as exhibited in the concurrent record of spoils, etc., almost uniformly depicted in the Konyunjik marbles, where the one scribe uses a broad stile with a clay cylinder or book-tablet; and the other appears to be scribing with a more pointed

clay cylinder or book-tablet; and the other appears to be ceriting with a more pointed instrument, on some pliable material.—See Layard, ii. 18s, 'Monuments of Nineveh,' pl. 58; as well as Nos. 59 and 15\* British Museum.

To revert, however, to the Indian question, I may remark, in conclusion, that the tradition in Huen Thiang's time, evidently went to the effect, that the early Buddhist scriptures of Kasyapa's council were written 'sur des feuilles de tâls (palmier),' and that, in such form, (iI) 'les répandit dans l'Inde entière.'— 'Histoire,' p. 158. Albiruni, in speaking of his own experience in the eleventh eentury, notices the use of paper (كأغذ), and the local employment, 'dans le midi de l'Inde,' of the leaves of the Tari (تاري); to which he adds, 'mais dans les provinces du centre et du nord de l'Inde, on employe l'écorce intérieure d'un arbre appelé tour (نَوز). C'est avec l'écorce d'un arbre du même genre qu'on recouvre les ares : celle-ci se nomme & houj' ( , ) .-- 'Reinaud Mémoire sur l'Inde,' p. 305.

Further references are given to 'Arrian,' l. viii., c. ix.; Foe-koue-ki,' p. 392, etc.]

1 [Dr. Weber has instituted certain philological comparisons, in the hope of

a Assyria—P. H. Gosse, London, 1832, p. 546.

b Hamze Ispahani مثاب تاريخ الأمر, p. 961, and xxv. 'Libri inventi sunt, in quibus deposite erant' varise corum discipline, omnes lingua Persica antiqua scripti in cortice tilz.'—See also 'Ayin-i Akbari,' vol. ii., 125.

Masson in A. A. p. 60 and 84. See also fig. 11, pl. iii. Ibid. Masson continues his representations and the receiver writing: 'In one or two instances.

tinues his remarks on substances used to receive writing: 'In one or two instances I have met with inscriptions; one scrutched with a stylet, or sharp-pointed implement around a steatite vase, extracted from a Tope at Darunta; another written in ink, around an earthen vessel, found in a Tope at Hidda; and a third dotted on a brass vessel."—See also 'Reinaud Memoire sur l'Inde, p. 305.

"'Jour. Roy. As. See.', vol. xiii., p. 110; 'Bhilsa Topes,' 299; 'Jour. As.

Soc. Beng.', vol. xxiv., p. 394.

This Sanskrit action upon the indigenous form need not be limited to the date at which we are now able to cite extant examples of the Pálí letters; and, as I have claimed for the latter an antiquity very inadequately represented by their use under Asoka, so I may assume an independent process of maturation under the influence of the former language, in written documents, which is not necessarily restricted in its point of departure to the date of the lapidary models of which that monarch has left us examples. Indeed, these very monuments, in their bearing upon each other, already exhibit the early phase of an irregular advance beyond the limitation of the normal letters, in the greater amount of compound consonants to be found in use in the Girnár edict, as contrasted with the Dhaulí transcript, and the still more simple records of the Eastern pillars, which, in point of time, are absolutely subsequent to the two former inscriptions. And this alone is sufficient to form a justifiable basis for a line of argument I have elsewhere adopted in reply-

being able to determine the initial method of writing in India by the definition of the primary meaning of the words employed to describe the endorsement of the edicts of Asoka. Following out the Greek and Latin analogy of the derivation of the art of writing, implied in the \( \pi \neq \text{id} \text{p} \), 'to grave,' and \( \text{aribe}, \) 'to scratch,' he contrasts the inflections from the roots \( \text{eq} \) and \( \text{eq} \text{eq}, \) which occur in the opening passage of these inscriptions; the one signifying 'to smear,' and also 'to write;' the other, he affirms, meaning primarily 'to scratch into,' and, secondarily, 'to write.' Any exclusive induction, however, from these materials is desired to us in the fact that the two words occur in absolute juxtaposition, and almost as if they were convertible terms; there can be no difficulty in admitting that the one root exists with almost a leading meaning for writing in the South (and in Bengal \( \text{Teq} \text{eq} \)'; while in the north it has retained a nearly exclusive signification for smearing, plastering, etc. The \( \text{Teq} \), on the other hand, whether its primary intention was to scratch into, or, more prebably, to draw a line, helds its position to a much greater extent in the dialects of India as the special indication of writing. However, these comparisons, incomplete and unsatisfactory as they must needs be, are complicated by a doubt as to the original derivation of the word lipi. In the Pali transcripts of Asoka's edicts the orthography is assured; but in the Kapur di Giri text, in spite of Professor Wilson's most determined conversion of the initial letter, in the numerous instances in which it occurs, the word is palpably and uniformly dipi (dipitam, dipikitam, etc.), which, as Mr. Norris has shewn, finds a counterpart in position and meaning in the Persian Cansiform Inscription ('Jour. Roy. As. Soc.', vol. x., p. 247, 250, lines 48, 55 of Tablet); and in the Scythic version it appears as tipi, with the same signification (vol

ing to those who follow too implicitly Prinsep's first idea of the progress of writing, and who seem

Disposed to admit of but one single element, as liable to affect the march of alphabetical development-that of time. To show how fallacious any notion of a necessarily progressive change would be, I may call attention to the very slight modification that is seen to have taken place in the local alphabets of Gujarat, etc., during several centuries; and I would inquire, if this argument is to hold good, how much of difference ought we to be able to detect between the alphabet of the Vallabhi copper-plates, which they would date in the sixth century A.D.,1 and the style of writing in use in the Western Caves, which is almost identical with the characters in prevalent use among the Buddhists in the 3rd century B.C. And yet, a reference to the facsimiles in pl. xxxvii, will demonstrate how essentially limited the alterations effected by this lapse of ages really were! Prinsep, as we have seen, was prepared - with his usual fairness-to concede that there were other causes likely to influence these alphabetical mutations, though his original idea had clearly been to assign all impulse in this direction to the effect of time. Had he lived to perfect his theory, I doubt not that he would have accepted other agencies as playing an important part in the results to be accounted for: prominent among these would, I think, have to be placed, the advance or retardation due to nationality or other local influences; otherwise it would be difficult indeed to account for the various separate alphabets that we find in all their independent diversity at a later period of Indian progress.2

Prinsep's own impression, above reprinted, will display how little reliance could

1 'Bhilsa Topes,' p. 149.

<sup>2</sup> As my readers may be glad to learn what Albiruni says on the state of the distributive varieties of writing current in his day, I append M. Reinaud's version of the entire passage :— On compte plusicurs écritures dans l'Inde. La plus répandue est celle qui porte le nom de siddha-matraca (عد ما ترك ) ou substance parfaite ; elle est usitée dans le Cachemire et à Benarès, qui sont maintenant les deux principaux foyers scientifiques du pays. Ou se sert également de cette écriture dans le Madhya-Deca, appelé aussi du nom d'Aryavartta. Dans le Malva, on fait usage d'une écriture appelée موجعة ( كاكر ) : celle-ci est disposée de la même manière que la première ; mais les formes en sont différentes. Une troisième écriture, nomée arddha-nagary (أردناكرمي), c'est-à-dire à moitié nagari, et qui participe des deux premières, est usitée dans le Bhatin (بهاتية) et dans une partie du Sind. Parmi les autres écritures, on peut citer le maleary (ملقاري), usité dans Maleascheva (ملقشوا) au midi du Sind, près de la côte ; le besandiba (بسندب), employé à Bahmanava, ville appelée aussi Mansoura; le karnâta (كرنات), usité dans le Karnate, pays qui donne naissance aux personnes appelées, dans les armées, du nom de Kannara (کشرة) l'andri, employé dans l'Andra-Deça ou pays d'Andra (اُنتر ديش); le dravidi, usité dans le Dravida ou Dravira; le lari, dans le Lar-Deça ou pays de Lar; le gaura (کوري), dans le Purab-Doça (پورب ديش) ou région orientale (le Bengalé); et le bikehaka (بيكشك) dans le Oudan-Pourahanāka (اودنپورهناك). La dernière écriture est celle dont se servent les bouddhists (البد) - M. Reinaud, 'Mémoire sur l'Inde," p. 298.

be placed on a judgment which did not take this element into consideration, for he assigns, on the mere ground of forms of letters, a higher antiquity to the Gujarat copper-plates, than he does to the Gupta inscriptions; whereas, we now know, that

the Guptas preceded the Vallabhis!

V. As to the possible influence of the Semitic character of Northern India on the collateral Pálí; I should reduce this to the very minimum under its direct Palæographic aspect, and should even prefer to advocate the converse proposition. There are here also some singular alphabetical coincidences which, however, had better be reserved for examination under the notes on the Arian character. A point which adds materially to the difficulty of instituting any useful comparisons in regard to this division of the subject is our ignorance of the date of the introduction of the Arian branch of the Semitic tree into the regions south of the Hindú Kush and its extension into the sub-Himalayan belt towards Hastinapúr. For, as in the case of the Southern alphabet, its

<sup>1.</sup> Jour. As. Soc. Beng., vol. vi., p. 969.—See Translation, vol. i., p. 233.

<sup>&</sup>lt;sup>3</sup> 'Jour. As. Soc. Beng.,' vol. vi., p. 1.—English Version, vol. i., p. 240.

<sup>5 &#</sup>x27;Jour. As. Soc. Beng.,' vol. vi., p. 455.—Noticed at p. 245.

<sup>\* [</sup>I am not at all certain, however, that the Arian alphabet did not contribute the letter Φ, the equivalent of w in its own series, to serve in the Sah inscription as w. The original character has, to my perception, more of mechanical coincidence with the general tendency of the Arian formation of letters, than of homogeneity with the alphabet of the South; and it is curious to observe how soon the perpendicular centre stroke of the original became horizontal under local treatment. The proper Indian b = w, on the contrary, seems to have been of indigenous adaptation.]

earliest appearance, within our ken, is in the counterpart edict of Asoka at Kapur di Giri in the Peshawur valley. Two items, however, suggest themselves as important in the general inquiry. (1) The greater amount of pure Sanskrit the Kapur di Giri inscription1 carries in its text, as illustrating the descending course of that language; and (2) the ultimate and not very long delayed extinction of all trace of the once extensively prevalent Arian character, and its supersession by the more exact and appropriate system of writing indigenous to the south ! 3

1 [ 'Jour. Roy. As. Soc.,' vol. xii., p. 236.]
2 [ Prinsep had already noticed this fact in connexion with other data them at his command—'The vernacular language of India at that period, then, varied in different provinces;—it approached more to the Sanskrit in the N.W., 'etc.—vol. vii., p. 280. The possession of several letters requisite for the due definition of Sanskrit orthography, but unneeded in Phil writing, is also important.]
2 [ I have usually avoided complicating the simple Palsographic inquiry—on which alone my data entitle me to speak—with any reference to the important light philology must be expected to throw upon the general question. I depart from my rule in this instance, in citing the original and highly valuable remarks of the author of the 'Drâvidian Grammar, 'a regarding the existing state and probable early course of certain Indian languages. Mr. Caldwell's position may be stated in his own words:—
3 'That the Drâvidian languages are to be affiliated, not with the Indo-European, but with the Scythian group of tongues; and that the Scythian family to which they appear to be most closely allied is the Pinnish or Ugrian. (The scope of the term Drâvidian is defined by the author as follows: The idioms which are included in this work under the general term 'Drâvidian' constitute the vernacular speech of the great majority of the inhabitants of Southern India. With the exception of Orissa and those districts of Western India, and the Dekhan, in which the Gujarūthi and the Marūthi are spoken, the whole of the peninsular portion of India, from the Vindhya mountains and the river Nerbudda (Narmada) to Cape Cormoria, is peopled, and from the earliest period appears to have been peopled, by different branches of one and the same language—the language to which the term 'Drāvidian' is here applied; and scattered offshoots from the same stem may be traced still further north as far as the Rajmahal hills, and even as far as the mountain fastnesses of Beluchistan. The Gujarūthi, the Marūthi (with its of indigenous or vernacular are spoken or occasionally used by particular classes resident

<sup>&</sup>quot;A comparative Grammar of the Dravidian or South Indian Family of Languages, by the Rev. R. Caldwell, B.A. London, Harrison, 1856."
" Cf. also Norris' Soythian text of the inscriptions at Behistun.—" Jour. Roy. As.

Soc., vol. xv.

The discovery of this Dravidian element in a language spoken beyond the Indus
The discovery of this Dravidian element in a language spoken beyond the Indus proves that the Dravidians, like the Aryans, the Graco-Scythians, and the Turco Mongolians, entered India by the North-Western route.—p. 23.

In this indeterminate state, I am content, for the present, to leave the general question of the progressive development of the writing of India proper; being convinced, that no uniform or absolute law can be enunciated applicable to the varied circumstances of the whole circle of the paleography of the

 Telugu;
 Canarese;
 Malayalam;
 Tulu—[the remaining four are] entirely uncultivated, destitute of written characters, and comparatively little known—
 Toda or Tudara;
 Kota;
 Gond or Goand;
 Khond or Kund, or, more properly, the Ku.
 The proportionable numbers of the several races by whom the languages and dialects mentioned above are spoken appear to be as follows:

1	***************************************	10,000,000	\
2		14,000,000	1
3			32,150,000
		2,500,000	32,130,000
5		150,000	١
6	to 9	500,000	J

Whilst I regard the grammatical structure and prevailing characteristics of the

'Whilst I regard the grammatical structure and prevailing characteristics of the Dravidian idioms as Scythian, I claim for them a position in the Scythian group which is independent of its other members, as a distinct family or genus, or, at least, as a distinct subgenus of tongues. They belong not to the Turkish family, or to the Ugrian, or to the Mongolian, or to the Tungusian, . . . but to the group or class in which all these families are comprised. On the whole, the Dravidian languages may be regarded as most nearly allied to the Finnish or Ugrian family, with special affinities, as it appears, to the Ostiak.'—p. 46.

The conclusions arrived at with regard to the Northern Indian languages are summed up thus—'It is admitted that before the arrival of the Aryans, or Sanskrit speaking colony of Brahmans, Kshatriyas, and Vaisyas, the greater part of Northern India was peopled by rude aboriginal tribes, called by Sanskrit writers Mléchehas, Dasyus, Nishadaa, etc.; and it is the received opinion that those aboriginal tribes were of Scythian, or, at least, of non-Azyan origin. On the irruption of the Aryans, it would naturally happen that the copious and expressive Sanskrit of the conquering race would almost overwhelm the vocabulary of the rude Scythian tongue which was spoken by the aboriginal tribes. Nevertheless, as the grammatical structure of the Scythian tongues possesses peculiar stability and persistency; and as the pre-Aryan tribes, who were probably more numerous than the Aryans, were not annihilated, but only reduced to a dependent position, and eventually, in most instances, incorporated only reduced to a dependent position, and eventually, in most instances, incorporated in the Aryan community, the large Sanskrit addition which the Scythian vernaculars received would not necessarily alter their essential structure, or deprive them of the power of influencing and assimilating the speech of the conquering race. According to this theory, the grammatical structure of the spoken idioms of Northern India was to this theory, the grammatical structure of the spoken idioms of Northern India was from the first, and always continued to be, in the main, Scythian; and the change which took place when Sanskrit acquired the predominance, as the Aryans gradually extended their conquests and their colonies, was rather a change of vocabulary than of grammar,—a change not so much in the arrangement and vital spirit as in the stateried of the language. This hypothesis seems to have the merit of according better than any other with existing phenomena. Seeing that the Northern vernaculars possess, with the words of the Sanskrit, a grammatical structure which in the main appears to be Scythian, it seems more correct to represent those languages as having a Scythian busis, with a large and almost overwhelming Sanskrit addition, than as having a Sanskrit busis, with a small admixture of a Scythian element.'—p. 38.

'The Scythian substratum of the North-Indian idioms presents a greater number of points of agreement with the Oriental Turkish, or with that Scythian tongue or family of tongues of which the new Persian has been modified, than with any of the Dravidian languages.'—p. 39. multifarious languages and nationalities embraced amid the indigenous or intrusive races, who in succession may have peopled portions of that land.

I now insert the type Table of transitions of the Indian Alphabet referred to at page 41. This, like Prinsep's lithographed synopsis, requires but little introductory notice, as it should be sufficiently explanatory in itself, but it may be necessary to mention, that I have modified some of the headings of the earlier alphabets, which I have felt bound to retain unaltered in the artist's copy of Prinsep's original fac-similes.

The derivations of the six leading or epochal series of the general table may ordinarily be gathered from the notices and translations of the original texts of each, inserted in various parts of this publication.<sup>2</sup>

The so-entitled Nerbudda character is taken from a set of copper-plate grants, of uncertain date, found at Seoní in the Saugor and Nerbudda territories; and the Kistna alphabet,

<sup>&</sup>lt;sup>1</sup> J As the accompanying Table of Alphabets has lately appeared, under a slightly varied form, in the work of another author, it is necessary for me to explain how it comes to be inserted in this place without the usual acknowledgment. My Publisher, in making his preparations for the present reprint, imported, at my request, from Germany, such of the Sanskrit types, based upon Prinsep's originals, as were deemed requisite for the illustration of the Palaeographic history of Indian writing. As some difficulties presented themselves, on the arrival of this foreign type, in regard to its justification and assimilation with our own, it was determined to set up the entire table before it was required in the order of the consecutive articles. This was done, and the first rough proof had been submitted to me, when Mr. Austin's managing superintendent intimated that if I had no objection he intended to lend the table for publication in Mr. Monier Williams' Sanskrit Grammar. I of course assented willingly to this arrangement, merely stipulating, in the most distinct manner, for the due acknowledgment of the derivation. I heard nothing further on the subject till the work in question appeared, under the suspices of the Oxford University Press, when I naturally looked for the expected recognition of the use of my materials. However, to my surprise, I could discover no notice whatever of obligations to my publisher or myself. Upon making inquiries, I discovered that there had been some misapprehension as to the terms under which these materials had been some misapprehension as to the terms under which these materials had been some misapprehension as to the terms under which these materials had been some misapprehension as to the terms under which these materials had been some misapprehension as to the terms under which these materials had been some misapprehension as to the terms under which these materials had been some misapprehension as to the terms under which these materials had been some misapprehension as to the

<sup>\* [</sup>No. 1, vol. ii. p. 8, et seq. of this publication; No. 2, 'Jour. As. Soc. Beng.,' vol. vi., p. 1042; see also Stevenson, 'Bombay Journal,' July, 1853, and January, 1854; No. 3, Art. xix. infra; No. 4, vol. i., p. 233; No. 5, vol. i., p. 252; No. 6, vol. i., p. 321.]

<sup>&</sup>lt;sup>3</sup> [See p. 726 'Jour. As. Soc. Beng.' vol. v. (1836), and also Prof. Wilson on 'Chattisgarh Inscriptions,' 'Asiatic Researches, vol. xv., p. 507.]

## TRANSITIONS

OF THE

# INDIAN ALPHABET,

FROM THE TIME OF ASOKA;

WITH SOME OF THE MOST MARKED LOCAL VARIETIES

AT PRESENT IN USE.

THE PORTER OF CORNERS CARREST INTO 49

SOUTH STATE

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DESCRIPTION.

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which follows, was obtained from inscriptions at Amaravatí in Berár.1

For the more modern alphabets, which are arranged irrespective of their relative antiquity, I have had to rely upon such

Prinsep explains the source from whence he derived the materials for this alphabet in the following remarks: ]- In the library of the Asiatic Society are ten manuscript volumes of drawings of sculpture, images, architecture, and inscriptions, forming part of the celebrated collection of the late Colonel Mackenzie. The greater portion of these are as yet unknown and undescribed. None of the series, as far as we can ascertain, have been published, nor are we aware of any attempt having been made to decipher the inscriptions. It is greatly to be wished that the whole of these interesting documents could be digested in some convenient arrangement and made accessible to the learned world, especially now that the invention of lithography offers a cheap and expeditious world, especially now that the invention of lithography offers a cheap and expeditious means of effecting such an object. We were in hopes of combining their publication in the form of a volume or two of plates, with the digest of the Mackenzie manuscripts, which, at the recommendation of the Society, the Government has lately entrusted to the Rev. W. Taylor at Madras, the author of 'Oriental Historical Manuscripts.' As a specimen of the contents of these curious volumes, Captain Cunningham has kindly favored me with the two lithographs numbered as pls. x. and xi., vol. vi., 'Jour. As. Soc. Beng.' He has selected the two longest inscriptions from the volume, No. 18, entitled 'Antiquities at Amarkvati,' a town in the Berkr province, situated on the Kistna river to the west of Nagpur.

'The majority of the sculptures of Amarkvati seem to belong to a magnificent

The majority of the sculptures of Amaravati seem to belong to a magnificent dehgops, or Buddhist shrine; but there is an admixture towards the end of the volume of objects of the lings worship. An accurate map of the town is prefixed, whence it appears that the ruined dehgops, whence the relies are taken, was on a mound of 150 feet dismeter, now converted into a tank. It is called Dipaldiana (translated by Colonel Mackenzie 'the mound of lights'), which so resembles the name of a similar place of Buddhist celebrity in Ceylon (Dambadinna), that we imagined, on seeing the inscription from the east side of the gateway, some mistake must have been committed; for on comparing the characters with pl. xxviii. of the 'Jour. As. Sec. Beng.', vol. v., p. 554, their perfect identity with the Ceylonese type of old Nagari was manifest: indeed the three initial letters appear to form the same word 'magike' . . . and the same combination there recognized as 'Makereja' . . . . drew Captain Cunningham's attention while copying the penultimate line of the

present inscription.

'The second inscription, occupying the two sides of pl. xi., 'Jour. As. Soc. Beng.,'
vol. vi. [the Kistna alphabet], is altogether of a different class, although the book
states it to have been procured from the same town, Amarkvati.

The character has much resemblance to that of some of the cave inscriptions at Mahhhalipur and other places to the westward; the essential portion of each letter also assimilates very closely to the alphabets of the Chattisgarh and Seom inscriptions, and this has served as the key by which I have effected the transcription of the whole.

It is worthy of remark, that in this alphabet, which we may aptly denominate the

Andhra character, from its locality, may be traced the gradual transition from the more simple Devanagari of Northern India (No. 2 of Allahabad, Gaya and Gujarat) more simple Devanagari of Northern India (No. 2 of Alianadoa, Gaya and Gujarat) to the complicated or florid writing of the Southern Peninsula. On comparing it with the Hala Kanara, or ancient Karnatic, the letters n, t, y, r, t, kh, th, dh, bh, which may be regarded in some degree as test letters, because they have undergone more variation than others in the modern writing of different provinces, are nearly identical. There is also an incipient loop in the lower line of many of the letters which becomes afterwards more developed in the west and south. The Telinga or Telingu character is one step further removad basis corings directly from the Hala Kanara and retains many of the America Indiana and retains many of the America Indiana and retains a many of the America Indiana. Kanara, and retains many of the Amera letters still uncontrol, particularly the dh



type as chanced to be available, amid which may be found some isolated forms that might stand but indifferently the test of local criticism.—E.T.]

and th. In the accompanying plate ("Jour. As. Soc. Beng.," vol. vi. pl. xii) we have thought it worth while to exhibit these resemblances, and point out the peculiarities noted, that no means may be neglected of facilitating the examination of other inscriptions that may link on naturally at either end of this fragment of the chain of our Indian palaeography."



ART. XIX.] 55

## XIX.—EXAMINATION OF THE SAH INSCRIP-TION FROM GIRNAR IN GUJARAT.

### SANSKRIT INSCRIPTION, No. 1, FROM JUNAGARH.

[ I insert Jas. Prinsep's translation of the Sáh inscription at Girnár as it originally appeared in the 'Jour. As. Soc. Bengal' notwithstanding that it has to a certain extent been superseded in the acquisition of more perfect copies of the monumental writing than he was constrained to rely upon—in order both to complete the record of his contributions to an important section of Indian Numismatics, and to serve as a needful introduction to his notes in illustration of the subject, which retain, with but limited exceptions, their pristine value!—E. T.]

After the announcement made in the proceedings of the Society, that the Governor-General has acceded to my request, for the deputation of an officer to take exact facsimiles of the several inscriptions in Gujarát, which have turned out to be of so important a nature, it may seem premature or superfluous to continue the publication of the analysis of the less perfect document now in my hands. But it is only in a few uncertain passages that the expected corrections are desired. The body of the matter is sufficiently intelligible, both in the Pálí edicts of Girnár, lately published, and in the Sanskrit inscription from Junagarh, which I have chosen for the subject of my present notice. I should, indeed, be doing an injustice to Capt. Laing, who executed the cloth facsimile for the President of the Bombay Literary Society, and to Dr. Wilson himself, who so graciously placed it at my disposal, when, doubtless, he might with little trouble have succeeded himself in interpreting it much better than I can do, from his well-known proficiency in the Sanskrit language; it would, I say, be an injustice to them were I to with-hold the publication of what is already prepared for the press, which may be looked upon as their property and their discovery, and to mix it with what may hereafter be obtained by a more accurate survey of the spot.

Before, however, proceeding to the inscription itself, I insert Dr. Wilson's account of the site.

'The rock containing the inscriptions, it should be observed, is about a mile to the eastward of Junágad, and about four miles from the base of Girnár, which is in the same direction. It marks, I should think, the extremity of the Maryádá of the sacred mountain. The Jainas, as the successors of the Bauddhas, greatly honour it.'

The rock or large stone above alluded to, appears to contain all three inscriptions. On the eastern side facing the Girnár hill are the edicts of Asoka in the old character; on the western side, the Sanskrit inscription which I have selected as my theme for the present occasion; and on the southern side a third inscription, longer even than either of the others, but somewhat more modern, and less distinct.

The western inscription, then, is near the top of the stone;—it covers a surface of ten feet and a half in breadth, by five feet in height. The stone is a good deal cut or worn away in two places, but it does not seem that anything has been lost on the outer edges, the irregularities there visible proceeding from the contour of the stone. Capt. Laing's facsimile is lithographed on a very reduced scale in the 'Jour. As. Soc. Beng.,' vol. vii., pl. xv.

The character is only one remove from the Buddhist alphabet of Girnár. It has the same mode of applying the vowel marks e, a, and o, in particular to those excellent test letters, n, n, and m. The vowel i is still formed of the three dots; but I need not more fully dilate upon its peculiarities, since I have already inserted the whole alphabet, as No. 3 of the comparative table [Pls. xxxviii., xxxix.] A few, also, of the principal passages are now subjoined on a larger scale in pl. xix., 'Jour. As. Soc. Beng.,' vol. vii., as upon them rests the value with which this inscription will, doubtless, be regarded in Europe as well as in India, on account of the historical information it is calculated to afford.

Once transcribed into modern Nágarí a Sanskrit inscription becomes easily intelligible through the aid of a skilful pandit. In the present instance, it has only been necessary to change two or three dubious letters to enable Kamalákánta to explain to me the contents of all the continuous passages which still exist on the stone, and it is fortunately not very difficult to imagine from the context what must have occupied most of the spaces now eroded or mutilated.

TRANSLATION OF THE GIRNÁR BRIDGE INSCRIPTION (APRIL, 1838).

(Be it) accomplished! This very impassable bank at the foot of the hill city (Girinagara\*). . . . . . . (15 syllables) with wide expansion and with great

<sup>&</sup>lt;sup>1</sup> The same invocation, siddham, is used in the Skandagupta inscription, pl. i.
<sup>2</sup> The vowels of the word Girinagar are wanting, but the name cannot be mistaken, being modern Girnar.

depth of strong masonry,1 carried all along the bottom of the said hill, filling up the interstices or irregularities in even layers, up to the height of the bank . . . . . . (30) . . . . . . . . . . by a chosen (architect?) the foundations of the bridge being completed most substantially, by embanking off in various ways the water . . . . . . . (50) . . . . . . . . by workmen cheered on by kindnesses, and with a vast abundance of materials, was in progress. Then the work continued under favor of the Raja Mahakshatrapa (the great patron of the warrior class), who was named Swami Chastana . . . . . (and was completed) in the seventy-second year of his son, the Kshatrapa, mindful of the lessons of his instructors, the raja named Aridama,2 in the dark half of the month of Margairsha . . . . . . . . . . . . . (afterwards) by an immense inundation, brought on by heavy rains, converting the whole surface of the earth into an ocean, and making a mass of mud of the hill of Urjayata (?)-... by the tempestuous waves of the Palesini river, and its several tributaries, the bridge . . . . . (was carried away. Subsequently) . . . . . in conformity with the original design, (it was) repaired with blocks of stone from the hill, remedying the difficulties of the passage way with numerous long beams and trees laid across,-and skilfully uniting them . . . . . (A second time) by the force of the waves, in a fierce hurricane and flood, (it was) broken down and much damaged, . . . . . . . (after which), with stones and trees and piles, and massive beams stretched across, it was again put into complete repair, with an indestructible ambankment, having a length of 400 cubits, and in like manner having a breadth of 75 cubits, in a wonderful manner taking out all the water, and laying dry the bed of the river 5 . . . . . . by Pupya Gupta, the territorial treasurer of Raja Chandragupta Maurya, (this) was caused to be done: and by the Youana raja of Asoka Maurya, (named) Tushaspa, it was ornamented with cornice and parapet, and with an artificial canal visible there, over which the bridge also extended, in a manner worthy of the approval of the raja. . . . . . (Afterwards) by him, who, being predestined from the womb to the unceasing and increasing possession of the fortunes of royalty, was invited by all classes waiting upon him for the security of their property-to be their king :- who, from clear intelligence, has not suffered the sacrifice of animal life ;-who is faithful to his promises-who is courteous in 'speech-who in battle, opposed face to face with an equal antagonist, and threatening to discharge his weapons, compassionates his yielding foe . . . . . . who gives hope to those of their own accord repairing to him to beseech for succour . . . . . preserving the ancient customs of the town unin-

- सन्धि बन्धि, the joining or comentation of masonry, is now called by a similar name jorêi. I suppose the piers or foundations to be intended.
- <sup>2</sup> TIECICE (sic)—if this is correctly traced, it contains a grammatical error, in the substitution of t for; after t. The name might be read Atri; or Rudra, were the preceding word names. The date may be read either varabe ducisaptatia (me) followed by numerals,—or Ari damni nashte ducisaptati vatsare, in the 72nd year after the death of Aridama. As there is a space after duci, sata may be also supplied, making the date 270.
- <sup>3</sup> **ugacuative**, the introduction of Ducira here is hardly intelligible, perhaps we should read anutalpot viri sarana nechraya vidhansini—the remover of the impediments to the flow of the current from the beams and materials that had fallen into the river.
- Jevera the distinction of golar and latter in the modern wood market is, that the former are unsquared, and the latter, squared timbers.
- <sup>5</sup> I have given to this obscure passage the best sense in which I think it explicable, as the breadth, 75 cubits, could hardly have been that of the bridge itself.

fringed by the proud and insolent; -who is lord of the countries of Avanti, Anupa (?) Vrija, Anartta, Surushtra . . . . . . Savara, Kukara, Kirata, Tishat, and others, all conquered by his own might, and maintained in their former prosperity, and all their inhabitants, both high and low, converted into obedient subjects-all these countries, under his majesty (forming one empire), and furnishing every object of desire and gratification; who is the powerful leader of an army obeying him fondly as one born with the title of a renowned hero; -who, after more than one conquest of Satkarni, the king of Dakshinapatha, by merely a threat (of attack), concluded a peace (with him) for the security and protection of his country . . . . . . and again set up his royal banner; -who has a natural taste for exercising and improving the strength of his hand, according to the rules2; -who is renowned for his skill in the practice of all the celebrated sciences, of grammar, of polity, of singing, of expedients (mechanics?) and the rest, the theory of which he has gone through, and tolerably retained; -who, powerful in horses, elephants, chariots, oxen, weapons, and armour . . . . . . . exceedingly clever in breaking down the strongholds 3 of his enemies; -- who is every day happy in the bestowal of alms and mercy; -- who is affable in manners; -whose treasury is abundantly filled with gold, silver, tin, and the lapis lazuli jewel, brought as tokens of his greatness, offered to him as his just and proper measure of tribute; who (understands) the precise etiquette of (courtly terms), their lent in gait, color, vigour, and strength, &c.; in form and limb of most auspicious aspect; -who, of his own (merit?), has the title of 'patron of warriors and king of men;' -who is crowned with the garland of flowers won in the Swayamvara coromony (or tournament) ;-by this great patron of the warriors (or Satrap) Rudra Dama . . . . . . . . . zealous for the increase of his religious fame, and in kindness and compassion for females, and the lame and sick: and with a most liberal expenditure from his own treasury (for the people?) ;-consenting at once to the petition of the chief citizens; -the construction of this bridge with threefold strength, . . . . . after due inspection, was ordered to be done; -thus:

- Most of the countries enumerated here are to be found in the Puranas. Avanti is well known as Oujein; Vrija is the country about Mathura; Anartta is mentioned with Comboja, Sindhu, and Yavana Margana ('As. Res.' viii. 339, 341), and is therefore probably in the Panjab:—Kukura is enumerated in the same list with Benares; Savara is called a wild tribe in the south-east. There are three Kirátas named—two (Chandra and Rajys) in the north-east, and one in the south (pp. 339-41) Tishat may perhaps be read Toshali in Katak, of which more hereafter.
- \* By inadvertence, I have omitted the repetition of the word arjita क्राजिताजित at the beginning of the 13th line in the lithograph.
- 3 Reading पर्वजाज्ञय, but the text may be read बज्ज्य making it 'destroying his enemy's force,' or again it may be पर्वज्ञाधवेसी प्रविद्योग, well skilled in diminishing the power of his enemies. (The Nagari transcript has been altered thus.)
- 4 In former times, Hindú maidens chose their favourite among a band of suitors by throwing a garland over his nock. A play on the name Drives is intended.

satisfaction,—the strong man and overcomer of difficulties, surrounded by his overseers (gattis),—by him, the establisher of religious fame, and the increaser of the glory of his master, was this work executed."

#### OBSERVATIONS.

I have already remarked, that in this inscription, for the first time, we find the name of the great Chandra Gupta, the contemporary of Alexander, recorded on a genuine monument of antiquity. There can be no doubt of his identity, because his family name Maurya is added; and further, the name of his grandson, the no less famous Asoka, immediately follows, designated also by the same family cognomen of Maurya.

On first discovering this important fact, and perusing the mutilated fragment with Kamalákánta pandit, as well as we could make it out, I thought myself in possession of a record of the time at least of Asoka, by whose deputy or viceroy the bridge seemed to have been completed. The long string of complimentary epithets which fill up the bulk of the inscription being in the instrumental case, and thus agreeing with the Yavana rájena of the upper sentence.

This turns out not to be precisely the case. A considerable period is embraced in the history of the Girnár bridge, partly anterior and partly subsequent to the time of Chandra Gupta;—thus it seems originally to have been erected by a Prince named Swámi Chashtána, a name rather Persian than Indian;—it was then either repaired

<sup>&#</sup>x27;Anushthitam **或可设**者, accomplished. The same word is used at the foot of the Allahábád inscription—(vol. vi. 978). But I know not how it there eluded the apprehension of the pandit who made me write in lieu of it **或可证式** 'remaining firm or fixed,'

or more probably completed by his son Aridámá or Atridámá in the month of Márgasirsha or Agrahayana, in the year 72, but the letters which follow are unfortunately illegible, and we are left in the dark as to the era then in use for recording events.

The bridge was then totally destroyed by an inundation of the river Paleshini, a name I cannot discover in the map of Gujarát. Thus temporarily repaired, perhaps by the inhabitants, it was again carried away; and a more thorough reparation was commenced under orders from Chandra Gupta Maurya, by his prefect of the province, Pupya Gupta, and completed in the reign of Asoka, his grandson, thirty or forty years afterwards, by his Greek officer, for so I think we may understand Yavana raja. The brahmanical population of the distant province of Suráshtra probably had but little affection for the Buddhist monarch, who is not even honoured in the inscription with the title of raja, being simply styled Asoka the Maurya! The name of his Greek employè is not very plain on the cloth; it may be read तुपस्पन—' by Tushaspa,' a name evidently of Persian termination, like Gushtasp, Lohrasp, etc., from asp, 'a horse' (Sans. asva). Were the name written Tushasva, we might have supposed it a translation of the Greek name Philippos, having precisely the same meaning; and we might have argued that some adventurer having, from his military prowess, obtained service under Asoka, had added those new provinces to his empire, which we find noticed in his religious edicts, and had at length usurped a considerable share of power to himself; being, in fact, the very Yona rája whom the Muhammadan historians state to have

dispossessed Sinsar Chand's grandson. But I am sensible that I have been frequently guilty of running ahead of prudence with my deductions, and I must consequently draw in a little; for it may be possible, after all, that the word yavana does not exist. It is preceded by the letter न, which I have rendered न, 'further,' 'too;' but the expletive is somewhat out of place, and some may prefer the reading अभोकस्य तीयवनराजन, 'by Asoka's raja (or lord) of the floods and forests.'

To continue my history of the bridge:-after the last repairs, although no accident is mentioned, we must conclude that such had occurred, and that the bridge was rebuilt by the prince upon whom the largest share of the eulogistic inscription is lavished. The opening passage may perhaps be recoverable on a careful re-examination of the stone. Towards the close, it does indeed mention that on the petition of the inhabitants (backed by female influence?) he strengthened the structure three-fold at his own expense. Now the name of this prince is Rudradámá, destined, it says, from his cradle to be elected to the throne,—his title is Rája Mahá Kshatrapa, the same as that of Aridama and Swami Chashtán. We may therefore view him as a scion of the old dynasty, replaced on the throne after a temporary subjugation of the province by the Maurya sovereigns of India proper.

It is curious, and most interesting to those whose attention is engaged in the subject, to observe how different ancient monuments throw light upon one another, and help to their mutual development. The name of Rudradámá recals to our memory the series of Surashtra coins described in my journal hardly a year ago. Among the eleven names there distinguished, Rudradámá was conspicuous as following just such a break in the line as would be made by the cause above alluded to. Again, the title then read as Mahá Kritrima, the elected king, on second examination agrees precisely with the present more palpably developed Mahá Kshatrapa. On referring to the plate of Mr. Steuart's coins, sent to me by Capt. Harkness, I find that I so read the word at first, and noted it in pencil, but gave it up on the pandit's ignorance of such having ever been a title in use. Had I possessed at that time a comparative alphabet to consult, I should immediately have perceived that the right hand twist at the foot of the k did not then denote as it does now the vowel ri, which was formerly turned in the contrary sense; but that it was the cerebral sh subjoined to the k (forming ksh), exactly as it occurs on the Junagarh 1 inscription. The p also deceived me, being more pointed than the same letter in the word putra; but on examination of the coins in my possession, I find it generally rounded off as U, and never crossed below as the m.

The word was: kshatrapas, although wholly unknown as a sovereign title to modern Hindús, and not to be found in their books, is familiar to the reader of the Grecian history of ancient Persia, with merely a softening of the initial letter, as zatranez, Satrapa, the prefect of a province under the Persian system of government. I do not believe that the etymology of this name has ever

I have before remarked that this town seems called after the Greek prince, Yavanagada.

been traced. It is called a Persian title, but the Persian dictionaries only contain سترب Satrab, as an obsolete term for the governor of a province, without explanation of its origin. In Sanskrit it signifies the ruler, feeder, or patron of the kshatra or military class; and now that we know the ancient language of Persia east of the Euphrates to have been a near dialect of the Sanskrit, we may conclude that Satrapa had the same signification in Ariana. It is not for me in this place to speculate on the purport of the term in the Persian polity, but it is a fact well known that the effeminate Persians at a very early period were in the habit of governing their numerous tributary provinces by mercenary troops. The same system, and the same denomination of Satrap, was adopted and retained by the Macedonian conqueror, both when Greek and native officers were employed: and instances are frequent enough of the Satraps assuming to themselves independence and a regal title.

The Satrapies of the ancient Persian monarchy are not supposed to have extended across the Indus. If, in Alexander's time, this limit was first transgressed, it was not long before the Bactrian Greeks, or the Parthians, made themselves masters of Sindh, Katch, and Gujarát. The present inscription may incline the learned to conclude that Suráshtra was before then one of the Satrapies of the empire, from the name of Chastan, the Satrap, who is stated to have first erected the bridge, and who must have preceded Chandragupta. Rudra, Viswa, and others of the list are more Indian in sound. It is remarkable

See 'Jour. As. Soc. Beng.,' vol. vi., p. 385, for Vincent's authority on this subject.

that in the long string of epithets applied even to Rudradámá, the chosen Satrap, there is none which bears the slightest allusion to Hindú mythology; while, on the other hand, the coins of the whole dynasty bear an emblem which we have hitherto considered either of Mithraic or of Buddhist import. The name Jinadámá (wearing Buddha as a necklace) is decidedly Buddhistic; and the epithet applied in the inscription to Rudradámá, —'who, from right persuasion, never put any living creature to death,'—proves that Rudra's opinions were at any rate influenced by the proximity of the important Buddhist establishment at Girnár.

The style of prose eulogy employed by the composer of the inscription puts us much in mind of our old friend, the Allahábád column. It has its corresponding list of countries conquered and equitably ruled; but few of the names are, as might be expected, the same in the two. Avanti or Ujjayani, and Vrija (if the latter name be correctly read) are of the most importance as implying that the elected kings of the Sah family, or the Satraps of Suráshtra, as we may now more properly call them. had acquired dominion over all the central portion of India, driving back the Magadha sovereigns (who had previously spread their hands to the farthest west), into their own Gangetic limits. The other places, Anartta, Kukura, etc., are probably provinces to the northwest, out of India proper. One other name, however, deserves our particular attention, the king of the Dakhan (Dakshinapatha), who was twice threatened with an invasion, and brought to sue for peace. His name is Sátakarni, the same which occurs several times in the lists of the

Andhra kings extracted by Wilford from the Bhágavat and other Puránas. It is a patronymic, from **nastú**, 'the hundred eared,' which was, doubtless, the name of the founder of the family; and Sátakarni was probably the surname of all the line, though not repeated everywhere in the versified enumeration of the Puránas.

The locality of the Andhra dominion has hither to been as uncertain as the period of its sway. Wilford says in one place that the Andhra princes 'made a most conspicuous figure on the banks of the Ganges for above 800 years;" again, that Andhra and Koshala (near Kalinga) are used synonymously by some Hindú authors: again, that Srí Carna-deva took the title of king of Tri-kalinga, or of the three shores, to the east and west and south of India. From our inscription we perceive that the general term of Dakshinapatha agrees well with the latter definition, and we may rest content with denoting the Sátakarnis as kings of the Peninsula.

Further, as to their age, we find one of the name contemporary with Rudradámá who followed Asoka (we cannot say at what precise distance). Wilford brings them much lower down, from the third to the sixth century after Christ, in order to square the last of their name, Pulomarchi, or Puliman, with the Pulomien<sup>3</sup> of the Chinese.

He is forced to confess, however, that there were Andhras at the beginning of the Christian era, when, says Pliny, 'the Andaræ kings were very powerful in

Asiatic Researches, vol. ix. p. 101.
 Bid, p. 104.
 Quere. Is not Brahman written with this orthography in Chinese?

India, having no less than thirty fortified cities, an army of 100,000 men and 1000 elephants.

We must, therefore, consent to throw back the Andhras; and, instead of requiring them to fall into a general and single line of paramount Indian kings, as Wilford would insist, let them run in a parallel line, along with the lines of Suráshtra, Ujjain, Magadha, and others, individuals of each line in turn obtaining by their talent, prowess, or good fortune, a temporary ascendancy over their neighbours: thus at length we may hope to fulfil Capt. Tod's prophecy,—'let us master the characters on the columns of Indrapreshta, Prayag, and Mewar, on the rocks of Junagarh, at Bijollie on the Aravulli, and in the Jain temples scattered over India, and then we shall be able to arrive at just and satisfactory conclusions (in regard to Indian history)." <sup>2</sup>

[Prof. H. H. Wilson has most obligingly favored me with the subjoined revised translation of the interesting monumental record which forms the subject of the preceding remarks. The text upon which the interpretation is based is derived from an independent Devanágarí transcript of the original, I had prepared with much care from the improved fac-simile of Messrs. Westergaard and Jacob, published in the Journal of the Bombay Branch Roy. As. Soc. for April, 1842. Prof. Wilson has of course referred to the amended lithographed transcript of this

<sup>&</sup>lt;sup>1</sup> The name Sáragan, given in the Periplus as of a sovereign that had formerly réigned at Kalliena (near Bombay), has some resemblance to Sátakarni; but I will not build upon such uncertain ground.

<sup>&</sup>lt;sup>2</sup> Tod's 'Rájasthán,' i. 45: he gives a curious derivation, by the way, of the name of Junagurh:—"The 'ancient city,' par éveisures, is the only name this old capital, at the foot of, and guarding, the sacred mount Girnár, is known by. Abul Faal says it had long remained desolate and unknown, and was discovered by mere accident. Tradition even being silent, they give it the emphatic name of Jana, 'old,' gurà, 'fortress.' I have little doubt that it is the Asildurga or Asilgurh of the Grahilote annals, where it is said that prince Asil raised a fortress, called after him, near to Girnár, by the consent of the Dabi prince, his uncle."

writing, and verified my doubtful readings. His Sanskrit text and commentaries will be reserved for separate publication, in the 'Jour. Roy. As. Soc.' The matured result is all that I need desire to present to my readers.—E. T. 1

REVISED TRANSLATION OF THE SÁN INSCRIPTION ON THE GIRNÁR ROCK.

- (1). This perfect, delightful, beautiful (causeway?) from Girinagar to the foot of ..... (was constructed) of . . . . stone (and in) breadth, length, and height, was firmly built as a public road . . . . . . . . along the skirt of the mountain . . . . . Emulous 1 . . . . formed . . . .
  - (2). . . . . . . . . . by that artificial causeway, and still renowned.
- (3 and 4). . . . . . remains in a great heap . . . then this . . . in the year two (and) seventy (?) of the royal Mahahshatrapa \* Rudra Daman, whose name is repented by the venerable, the son of the royal Mahahahatrapa, of well selected name, Swami Chandana.3
- (5). In the dark half of Marga Sirsha, the earth was converted as it were into a sea, by heavily raining Panjanyu, so that the golden sand of the mountain (was washed away?).
- (6). And by the exceeding violent currents of the Palesini, and other rivers, destroying, as if at the end of the world, all that sought an asylum, even on the highest parts of the hill, as well as along the skirt, and bringing down the trees from the peak, the eauseway (was broken down?).
- (7). And this being accompanied by a terrible strong wind, the water rushed down like a cataract, sweeping away the stones, trees, shrubs, creepers, along the river, by (whose joint efforts) four hundred cubits (were thrown down). . . . . . . .
- was caused to be made by Pushpagupta, the chief artificer of the Maurya King Chandragupta, by Tushasyenu, the Yavana raja . . . . . of Asoka, the Maurya, through good fortune was adorned 5 . . . . . . . through that restoration, the raja (announced) to all castes having come to see the causeway, for their security, that by him discontinuance was made of putting men to death, by expelling the breath of life.
- (10). By observing this engagement, he (overcame all enemies, and extended his rule) over many well affected countries, conquered by his prowess.
- (11). Both in the east and west, as . . . . . avanti . . . . . Anartta Surashtra . . . kukkura Aparaútá, and all the nishadas.
- (12). Having repeatedly overcome Satakarni, the lord of the South, he concluded an alliance (with him?).
- Apparently alluding to the Selubandha of Rama, to which that of Girinagur is compared.
- <sup>2</sup> Rajno Mahahshatrapa may also mean 'the great Satrap of the King.'
  <sup>3</sup> But there is room left, by defects in the inscription, for one or more names between Rudra Daman and Swami Chandana.
- <sup>4</sup> The words are Sashti Yagusyena, possibly for Sreshtiya Gusyena, or the last may be intended for Guptena, as if there was a Sashtigupta after Chandragupta.
  <sup>5</sup> The inscription records the repair of the causeway by Rudra Dama. Here,
- apparently, it relates its having been built by some officer, or by the successor of Chandragupta; and repaired or beautified by the Yavana raja (?) in the time of Asoka.

As an atonement for leading my readers into this long digression, I-now present them with an engraved plate of all the varieties of the Suráshtra group of coins yet found. There is one new name added through the diligence of Lieut. E. Conolly. The rest are already known; but I subjoin their corrected readings for the satisfaction of my numismatical friends. The fact of their having a Grecian legend and head on the obverse is now explained, and the date of their fabrication is determined so far that we may place some of the early reigns in the second and third centuries before Christ: to what later period they descend we may also hope to ascertain through the means of other coins which will come to be described along with the third inscription from Junagarh, as soon as we obtain a correct facsimile of it. I may here so far satisfy curiosity, as to state that this third inscription,the longest, and in some respects the best preserved, though from the smallness and rudeness of the letters it is very difficult to decipher, -is in a more modern character, that allotted to the third century after Christ, or the Gupta alphabet; and that in the opening lines I find an allusion to Skanda Gupta, one of the Gupta family, whose name has also been found upon a new series of the Suráshtra coins. The words are ... कीर्त्ति विग्रण नपतिः सान्ग्रः पृषुत्रीः चतुर..... (Vide 'Jour. As. Soc. Beng.,' vol. vii., pl. xix., and vol. i. ante, p. 247).

We shall thus be able to string together by means of the inscriptions and coins of ancient Suráshtra a continued series of names and dates from the time of the Maurya dynasty to that of the Gupta dynasty of Kanauj, which terminates the catalogues of the Puránas. Dates, too, did I say? Yes, I am in hopes of adding even actual dates to the series, for I have been fortunate enough to light upon a clue to the ancient forms of the Sanskrit numerals, and to discover their presence on the very series of Suráshtrian coins to which I have been just alluding. But here again I must solicit a little patience while I describe the grounds of this new assertion.

### ON THE ANCIENT SANSKRIT NUMERALS.

The most ancient mode of denoting number in the Sanskrit languages, as in the Greek and Latin, was by the use of letters in alphabetical order. This system we find prevalent in all ancient Sanskrit works, as well as in the Pálí, the Tibetan, and other derivate systems. There do not, indeed, appear to be any numerals peculiar to the Pálí. In their sacred records the words are always written at length; they have also the symbolical words of the Sanskrit astronomical works, and what is called the Varna sankhya, or numeral classification of the alphabet. The numerals now employed in Ceylon, Ava, Cambodia, Siam, have hardly the slightest affinity to one another.

When this system was exchanged for that of the decimal or cipher notation does not appear to be known, or to have been investigated by the learned. Up to the ninth or tenth century of our era, the Nágari numerals extant on numerous monuments do not differ materially from those now in use.

In the Gupta class of inscriptions, as far as I know, no numerals had as yet been found until I noticed some doubtful and unknown symbols on the Bhilsa monument. In the Buddhist pillar inscriptions the dates where they occurred were uniformly expressed at full length.

A few months ago I was engaged in transcribing and reading with my pandit some copper-plate grants supposed to be of the third century, found in Gujarát by Dr-Burn, whose beautiful copies of them I hope shortly to make public. In one of these, the date was entered at full in the words taket unded and interpretable in the samuat year three hundred and ninety-four.' A few lines below this the word utaket again occurred, followed by three symbols, d, m, f, which must, of course, be numerals: they are more exactly copied in pl xl., and, according to the preceding statement, should be 394.

On a second plate in the same manner, the date in words was संवत्सर भन चयेशित्यधिक कार्त्तिक मुद्रपसद्भा, 'in the 15th of Kartik, samvat 380,' and in figures सं, d, l, कार्त्तिक मु

On a third plate the date in words was natural satisfies with a single  $a_i$  (Kartik full moon, samuat 385,' and in figures d, l, i, and o, i, as before: in both of which the same symbols occur for 1, 3, 8, and 5; and the latter figure, much resembling the ancient letter na, but slightly altered, was again observed on a fourth plate sent me by Dr. Burn, from Gujarát, which did not contain the date in words, thus,  $\mathbf{a}$ , d, k, h.

<sup>&</sup>lt;sup>1</sup> [In the original text of the 'Jour. As. Sec. Beng.,' fac-similes of these numerals are inserted in each place; as these are repeated in full in Prinsep's own Plates No. xl. of the present series, and are re-copied and classified in my supplemental Lithograph, pl. xl. s, I have not thought it necessary to have these types re-cut, but have supplied their places by italic letters, whose several correspondents are duly defined in the new transcript of pl. xl. s.]

Much pleased with this new train of discovery, I turned to Mr. Wathen's paper in the fourth volume of the Journal, in which I remembered his interpretation of the date on a similar grant by Srí Dhara Sena, as being in the ninth year of the Valabhi Samvat of Tod, corresponding with A.D. 328. Here the translator had no written entry to guide him, nor had he any clue whereby to recognize the numerals which followed the abbreviated Samvat, thus, d, c, which we now perceive to be 300, + some unknown unit. I immediately wrote to Mr. Wathen and to Dr. Burn, requesting them to examine carefully the dates of all other plates in their possession, and from them in return I received all the examples which are inserted in plate xl. From the whole series combined, we may venture to assign a certain value to the 1, the 3, the 4, the 5, the 8, and the 9.

The last of these, I could not but remember as the symbol on one of the Bhilsa inscriptions, which led to so many conjectures a year ago. In the form of  $\bigoplus$  we have evidently our m, or the year 9, but the three strokes at the side would appear to modify its value, or to be themselves a numeral, perhaps the o. Then, as we find the preceding k has not a dot above it, we may use that also as a numeral, and understand the whole k, m,  $\equiv$  as 2 or 6, or 790 according to the value to be hereafter assigned to k.

Again, in the second Bhilsa inscription ('Jour. As. Soc. Beng.,' vol. vi., p. 458, pl. xxvi.), the fig. 3, with another, is perceived following the word सम्बन्, and the last letter may possibly be a numeral also. In Mr. Ommanney's Multai inscription, two numerals of the

### Sanskrit Numerals.

Modern Devantigart Desarragart of Kill century Bengali, modern Assamon coins 17th cont. Nepalese ovins ditte Kashmirian, from on ancient Manuscript. Tibetan b 0 Barmese Gmo Ceylonese 3 9 O Karnata and Telinga w Pali letter numerals 20 co in the Barmese character. 30 30 33 0 ىد MEAR U U 4 4 an course Initial letters chat medern 双层用田 Ancient Numerals on Copper-plate Grants. Nº1 Haira, D' Burn in words. NO 和了 あり3(以る引着日子)8年 (Sumval 394) repeated in Figures \* 12 31 " J. B 4 Nº 2. In words and Figures X W' (380) - Nº 3 7 = M N. 4. D' only in figures Nº 5, d' J.A.S.IV. 477. x 1. x 2 3 3 4 4 8 = Nº6.De Samuat 375% or 30 ardha pausha Bhilm Inscription Nº 7. J.A.S.Y. +54 or sambi \ 0 3 FZUZZ4 79? Bhadrapada di 5 5 45 A D.N. 8, second, less perfect. Numerals on the Satrap Coins of Surashtra. Silver coins, 9 709 = 72 BB

Copper de

Lead de

: 20:

13/Stacy | 17 19 ?

:700

ANCIENT NUMERALS restored

14 (Conclly) 7 H ?

7 B many wheret date un



same class were observed ('Jour. As. Soc. Beng.,' vol. vi., p. 869.)

It may also be remembered that in my notice of the Suráshtra coins (vol. i, p. 433), I remarked behind the head on the obverse, besides a legend in corrupted Greek characters, a few strange marks, not at all like either Greek or Sanskrit alphabetical characters; to these I now re-directed my attention, and was happy to perceive that they too were in fact numerals of the same forms, and of equal variety with those on the copper-plate grants.

I have arranged at the foot of pl. xl. those specimens in my own cabinet, on which the figures are best developed.

Upon bringing the subject to the notice of Dr. Burn, at Kaira, he wrote me that he had already remarked these symbols on another very numerous class of old coins, found in the ruins of the Gujarát towns. are made of lead or tin; and have on one side, in general, a bull, and, on the other, the triple pyramid which forms the central symbol of the silver hemidrachmas of the Suráshtra satraps. I have not found space to introduce them into the present plate, but fig. 22, pl. xxxvii. will serve as a representative of the whole class. It is a finely preserved copper coin, most opportunely discovered and presented to me by Lieut. E. Conolly, from Ujein. It bears the numerical symbols d, k, very distinctly marked under the Chaitya symbol. Among the facsimiles of the leaden coins, I find d, I,:, and d, m,:, with barely room for a third figure, but in one the reading is d, j, g, so that we may venture to place them all in the fourth century of some yet unknown era.

Among the silver coins the variety is greater: fig. 23, which I find by the reverses is a coin of Rudra Sáh, has the year d, l, h.

Another, fig. 26, also of Rudra Sáh, has the third figure well developed d, l, a.

Fig. 24, of the son of Rudra Dámá (the repairer of the Girnár bridge), has apparently the numbers, d, m, :, or 390.

Fig. 12, from Ujein, Rudra Sáh II. has d, d, b, the first three rather faint. In a coin of Viswa Sáh, given to me by Mr. Wathen, similar to fig. 9, of the plate, the date is d, b, g.

Fig. 25, is a well brought out date d, j,:, on a coin of Atri Dámá, son of Rudra Sáh, in my cabinet: the coins of the same prince in Mr. Steuart's plate, and one also of Aga Dámá shew traces of the same second figure.

Now, although the succession of the Satraps, or Sáh family, as given in volume i., p. 429, rests but on slender evidence in some points; still, where the names of father and son are consecutive, we may rest with confidence on it in fixing the priority of such of our newly found numerals as occur on them respectively.

We must, for the sake of perspicuity, repeat the list, with the addition of the dates as far as we have traced them:

#### REGAL SATRAPS OF SURASHTRA.

- Rudra Sáh, son of a private individual, Swámi Jina Dámá.
- 2 K. Aga Dámá, his son.

(Here the connection is broken.)

3 MK. Dámá Sáh (no coins.)

- 4 MK. Vijaya Sáh, son of Dámá Sáh.
- 5 K. Vira Dámá, son of Dámá Sáh.
- 6 MK. Rudra Sáh, son of Vira Dámá, Samvat, b, (?) l, a, and d, a, :.
- K. Viswa Sáh, another son of Vira Dámá ditto d, b, g.
- 8 K. Rudra Sáh, son of M.K. Rudra Sáh, ditto d, d, b.
- 9 MK. Atri Dámá, son of M. K. Rudra Sáh ditto d, j, :.
- 10 MK. Viswa Sáh, son of Atri Dámá.

(Here the connection is broken.)

- 11 MK. Swámi Rudra Dámá (no coins.)
- 12 MK. Swámi Rudra Sáh, his son, Sameat, d, I, h, and d, m, : \*.

The two last names being insulated from the rest, were on the former occasion placed by me before Dámá Sáh, because the form of the letter j seemed of the earlier type. Since, then, I have learnt that the turning up of the central stroke of the j constitutes a vowel inflection. I now, therefore, bring the two Swámis to the foot of the list, on the plea that all figures must have precedence of the 9 or m. In the same manner we may now argue that b precedes d, this figure j, and the latter again l.

To aid in prosecuting my inquiry, I begged Kamalákánta to point out any allusions to the forms of the ancient numerals he might have met with in grammars or other works; but he could produce but very few instances to the point. One of these is to be met with in the Kâtantra Vyakarana, a work of Belála Sena's time, where the conformation of the four is alluded to in these words,

सन युगाक्रतियतुरङ्की विसर्गय

Like a woman's breast is the figure four, and like the visarga;

and the visarga is further explained by a passage in the Tantrā-bhidhāna, a more modern work still, dated in 1460 Saka.

# द्विठः खाडानचप्रिया ठकारेशवर्शसाम्यात् विसर्ग

The name of visarga is 'two the,' 'Swahd,' analapriya,—because the visarga has the form of the letter th (O).

This merely alludes to the modern form of the 4, which exactly resembles the Bengálí visarga.

The oldest allusion he could furnish, was the following on the form of the 6, from Pingala's 'Prákrit Grammar.'

# क्रमुद्वद्भद्रमत्ती असीलङहोर् मुद्यएक्क अली

"The guru mark 1 is like the figure 6, crooked, and of two strokes; it is called also laku (laghu), it is also denoted by one stroke or one minute."

This passage evidently alludes to a form of 6 more resembling the Bengálí than the present Nágarí type.

Another channel through which I was in hopes of tracing the ancient cyphers, was the numerical system of those Indian alphabets which bear most resemblance to the forms of the earlier centuries, such as those of Kashmír, etc. In the specimens of these, which I have introduced into the plate for the purpose of comparison, it will be seen that the three has certainly considerable affinity to our d; while the one and five approach nearly to our a and h. There is a faint resemblance in others of the group; but some again are totally changed.

The Tibetan numerals (of the seventh century) do not yield much more insight into the matter. They are, we may say, one remove backwards from the Bengálí numbers—the 1, 2, 3, and 5, only agreeing better with the Nágarí forms. The 1, however, agrees exactly with one of the ancient figures on the coins, and this has been my inducement to consider the latter as 1.

<sup>1</sup> i.e. The mark used to denote a short quantity in proceedy and in music, which is formed 3.

Upon regarding attentively the forms of many of the numerals, one cannot but be led to suppose that the initial letters of the written names were, many of them, adopted as their numerical symbols. Thus, in the Tibetan, 5  $^{3}$ , we see the  $^{3}$  or p of the same alphabet, the initial of pancha. The same may be said of the Kashmírian, and the modern Hindí form  $^{4}$ , and indeed in some measure of the ancient forms h and i.

Again, the Tibetan 6 s, resembles the ch s of that alphabet: the Ceylonese form is exactly the ch of its alphabet, and there is an equally marked connection between the Nágarí & and the & chha, which is the common name of this numeral.

On the same principle, in the absence of other argument, we may set down the k of our new series as 7, being identical with 7, the initial of sapts.

The modern 3 3, has no small likeness to the tr of the older Nágari alphabets; nor does the 2 differ much from d; but these resemblances may be more ideal than real; for, by an equally facile process of comparison, they might be both derived from the Arabic figures, as might other members of the series, as 7 and 8, in the Nágari of the Nepalese coins particularly.

The 9 of the Tibetan, Bengálí, Nepalese, and Burmese numerals is precisely the *l* of the ancient alphabets. Now, in the allotment of the vowels numerically, the *lī* represents 9; but it would appear far-fetched to adopt one insulated example of derivation from such a source.

The 9, however, of the Suráshtra grants and coins is of a totally different order. It resembles the four-petalled flower of the bėl, or Indian jasmine; and in the copper plates we find it absolutely represented with a stalk (see No. 1, of pl. xl). Seeking the name of this flower in Sanskrit, mallika, the pandit reminded me that one of its synonymes was nava mallika, which the dictionaries derive from nava, 'praised, excellent,' but which may now receive a much more natural definition as the 'jasmine flower resembling the figure 9.'1

It is further to be remarked that, in many of the ancient systems, separate symbols were used to denote ten, twenty, etc. in combination with the nine units severally. The curious compound figure seemingly used for the 1 of 15 in the two cases quoted above o may be of this sort: indeed it somewhat resembles the Ceylonese ten (see plate). On this point, however, I can offer no demonstration, nor any other argument, save that we have already more than nine symbols to find accommodation for as numerals.

With all these helps, and analogies, I have endeavoured to arrange the nine old numerical symbols in their proper order in the accompanying plate, so as also to meet the conditions of the succession of dates on the coins of the satraps of Suráshtra. In this I am far from being confident of having succeeded; but having once, as it were, broken the ice, we may soon hope for a more perfect solution of the curious problem, through the multitude of new, or rather old, monuments which seem to emerge from oblivion just at the time they are wanted, under the united efforts of the Society's associates in central India. Once having proved that it was customary to date the

<sup>&</sup>lt;sup>1</sup> [Prinsep's usually quick perception seems to have failed him here, as the Lantsa Numerals, in vol. xvi., 'Asiatic Researches,' p. 420, give almost the exact normal forms of 80 and 90, as found in the inscriptions and corn legends.]

coin of that early period, we must direct attention again to the monograms on the Bactrian, Indo-Scythic, and Kanauj coins, which may turn out to be also used numerically.

The numbers, then, which, from comparison with foreign and modern native series, as well as the other considerations above given, I have finally adopted, are as follows:—

Before concluding this division of my theme, I may be expected to explain in what era the dates of the Suráshtra coins can be expressed, so as to place Swámi Rudra Dámá, whom we perceive in the inscription to have followed at some reasonable distance Asoka himself, at the end of the fourth century, or about the year 390. If the Vikramáditya or Samvat be here intended, he will fall after the close even of the Arsakian dynasty of Persia, when the Greek was disused, and the arts had greatly deteriorated; when, moreover, the form of the Sanskrit character had undergone considerable change. If we take the Seleucidan epoch, which might have been introduced in the provinces tributary to Syria, Rudra will have reigned in A.D. 89. If, lastly, out of deference to Asoka's temporary supremacy in the Gujarát peninsula, we take the Buddhist era, then 543-390 will leave 153 s.c. about a century after Asoka, and in every respect the period I should like to adopt, were it possible to establish any more certain grounds for its preference. most perplexing circumstance is that the grants of the Balabhî dynasty are also dated in the third (or fourth) century, and that it is hardly possible to consider their dominion as contemporary with those of the satraps. For them, indeed, we must adopt the Vikramáditya era, whatever may be determined in regard to the one before us.

Following out the view of the question suggested by Prinsep's remarks at p. 77, in 1848 I succeeded in demonstrating that these signs were uniformly independent symbolical numerals, each denoting in itself a given number, irrespective of any relative collocation; and, therefore, that the d was equivalent to 300, wherever it might be found; and likewise, that the I and m stood for 80 and 90 respectively, whatever position they might chance to occupy. I then proceeded to distinguish those symbols of the Sah coin dates that declared themselves severally. units, tens, or hundreds, by their fixed place, in the order of value, which was always fitly maintained, notwithstanding that the figures themselves clearly could not change their signification by any relative re-arrangement. Beyond this, I cannot claim to have advanced the enquiry in any essential degree. The important aid that otherwise might have served me in the sequent classification of the numbers—the test of their recurrence on the coins of the Sah kings-was altogether wanting. from the fact that the order of succession of those princes was in itself undetermined.

A re-examination of the entire subject was therefore sufficiently called for; and it is possible th t the new data, which have lately become available, may contribute materially to solve the general problem of the system under which the ancient Indian scheme of notation was primarily conceived.\*

<sup>1 [&#</sup>x27;Jour. Roy. As. Soc.', vol. xii., p. 33.]

2 [M. Reinaud's 'Mémoire sur l'Inde' was published after the appearance of my Essay in 1838. I therefore transcribe the information contributed by that work towards the general subject. 'Albyrouny a consacré un passage de son Traité sur l'Inde aux chiffres employés de son temps, chez les Indiens, avec une valeur de posi-

The most important elucidation that this subject has received since Jas. Prinsep's original discovery, consists in the 'Observations on the dates found in the cave inscriptions at Nasik,' by the Rev. J. Stevenson.' Among these records are to be found no less than twenty-eight figures, or combinations of figures, usually appended to the written exposition of the given value defined at length in the body of the text;' the lower numbers are suffi-

tion. Ces chiffres sont appelés par nous chiffres Arabes, et les Arabes les nomment chiffres indiens. Albyrouny s'exprime ainsi: Les Indiens, à la différence de nous, no se servent pas des lettres de leur alphabet pour indiquer des nombres. Mais, de même que l'alphabet varie suivant les provinces, les chiffres changent aussi; les indigênes les nomment auks (1). Les chiffres dont nous faisons usage sont empruntés à ce que l'on a trouvé de plus convenable ches eux. Du reste, les formes sont indifférentes, pourvu qu'on s'entende de part et d'autre. Dans le Cachemire, on ne se sert pas de traits particuliers pour exprimer les nombres; on a adopté les signes employés par les Chinois. Mais un point sur lequel tous les Indiens sont d'accord, c'est de procéder d'après le système décimal.'

M. Reinaud continues: 'Arrêtons neus un moment sur les paroles d'Albyrouny: Les Indiens, a-t-il dit, ne se servent pas des lettres de leur alphabet pour exprimer des nombres. Il existe un traité sanscrit, composé par Aryabhatta, dans les premiers siècles de notre ère; et dans ce traité, comme cela se prutiquait chez les Grecs, les Juifs, et plus tard chez les Arabes, les nombres sont exprimés par les lettres de l'alphabet ayant une valeur numérale.' Apparecament, le procédé employé par Aryabhatta était tombé en désuétude au temps d'Albyrouny. Néanmoins, les traités acientifiques composés par Brahma-Gupta, au vii. stècle de notre ère, et par les écrivains postérieurs, ne supposent pas, en général, l'usage des chiffres; les nombres sont exprimés par des mots susceptibles d'être rattachés à une quantité quelcouque. Albyrouny ajoute qu'en ne pouvait se livrer à la lecture des traités consacrés à l'astronomie, si l'on ne s'était d'abord rendu un compte exact de cette manière de compter.' . M. Reinaud sums up his inferences to the following effect, 'Il semblerait résulter de l'emploi des lettres, de l'alphabet par Aryabhatta, pour exprimer les nombres, que dans les premiers siècles de notre ère, les Indiens mêmes, en employant ces lettres

<sup>1</sup> 'Jour. Bombay branch, Roy. As. Soc.', July, 1853, p. 35. 'Jour. As. Soc. Beng.' 1854, Note, p. 407.

I could have desired that the facsimiles of these inscriptions should have been more calculated to command our faith in their exact rendering of the originals, but I observe that Dr. Stevenson himself does not place any great reliance upon the transcripts, as he remarks, 'I trust also to be able to compare all the published copies of the facsimiles with the inscriptions themselves, which, in respect to those at Nasik, I have been unable as yet to do, so as at least to get as perfect a copy of them as can be obtained in the present state of the rocks. As the facsimiles are the property of Government, and executed by another gentleman (Lieut. P. F. Brett), I have done nothing more than, to the best of my ability, see that the lithographer executed his task faithfully.'—Bombay Journal, 1853, p. 57. And again, p. 56, Dr. S. observes,

Voy. un mémoire de feu M. Whish, intitulé, On the alphabetical notation of the Hindus ('Trunsactions of the Literary Society of Madras,' London, 1827). ciently simple and obvious, and are only perplexing in the multiplicity of forms some of their exponents are seen to take; the larger sums on the other hand, are expressed by a crude and uncertain method, under which the amount has often to be read backwards in the current line of writing; thus, the generic symbol for thousands is ordinarily entered first, that for hundreds second, while the specific decimal, or unit cipher, which has to determine the value of the whole, is placed last in the order of alignment, followed by the rest of the inscription. At times again, the mark for hundreds is indifferently inserted before or after the figure which indicates the total. If, by any possibility, further argument were required to that end—this double system of arranging the ciphers would alone establish that they were incapable of having their value enhanced or diminished by change of place.

Dr. Stevenson's point of departure, like my own on a previous occasion, was from Jas. Prinsep's investigations of April, 1838 (here reprinted); he does not seem to have seen my paper of 1848, and therefore expresses no opinion either for or against my position, but continues to follow Prinsep in reading "\(^1\) as three, in preference to three hundred; at the same time that he admits that the triple horizontal lines of the normal 3 fully suffice to express the lower number—for which indeed he has a second variant—and notwithstanding that his own materials contribute separate and independent signs for ten, twenty, thirty, and one hundred: the latter being specifically distinguished from the various generic signs for hundreds.

The next item I have to advert to, is the idea advanced that the Satrap numerals owe their forms to the Bactrian alphabet. This supposition I can scarcely bring myself to entertain.

It is difficult for me at present to say whether the frequent omissions of the point for ## and other anomalies, belong to the original, or are the faults of the facsimile."

Nasik Inscription, No. 2, plate 7.

<sup>&</sup>lt;sup>2</sup> Dr. Stevenson remarks, 'In the Satrap inscriptions, the numerals used to express the different sums of money there mentioned are peculiar. At first I could determine nothing about their origin, but on a careful examination I found a strik-

The assumption is chiefly based upon the similarity traced in certain forms of the figures to the original letters of the Arian writing; in order to carry out the comparison however, very great liberties have to be taken with the normal forms of the characters themselves-still very incompletely ascertained -and even these, rather forced identifications, are confined to a very limited proportion of the entire suite of the numbers; while on the other hand many of the figures are clearly and indubitably composed of letters of the identical alphabet in which the inscriptions at large are expressed. That these ciphers in their original constitution actually were indigenous letter symbols seems to be further established by other more recent inscriptions, where such forms are frequently seen to follow the progressive modification of the associate alphabet. I omit the dry details incident to the verification of each symbol, referring my readers to the 'Journal of the As. Soc. Beng.,' in which the original paper is to be found.

ing resemblance between the character denoting a thousand (Sahasra) and the Bactrian S reversed. This induced me to examine the rest of them, and I think it exceedingly probable that they are all derived from that source. The Bactrian Tz, pronounced in Sanakrit J or Duch, will represent well the figure, which is first in 5 or 10 (Dasha). The sign for 5 (Pascha) is the P, or the old Indian U inverted. The Bactrian double T also approaches very nearly to the 8 of our inscriptions, as if to denote wg. It would appear, then, that the Bactrian letters had been introduced into the Satrap Indian inscriptions as numerical ciphers. The system, also, is the ancient Roman and Greek one, that in which there are different signs for the 1 in tons, hundreds, and thousands; our present decimal notation being, as I have noticed elsewhere, a comparatively modern invention of the Scindian merchants of the middle ages ('Jour. Roy. As. Soc. Bombay,' vol. iv.) Further research will probably show, as Mr. Prinsep has done with a few of them already, that the old Indian numerals are also ancient letters.'—Jour. Roy. As. Soc. Bombay, vol. v., p. 39.

1 The Gupta units vary somewhat from the Sah exemplars, and hence domand a passing notice. As yet I have only been able to discover three definite and complete forms,—the one, which is shaped as an ordinary hyphen, the Y = four, and the curious figure that occurs on coin No. 67, pl. ii., 'Jour. Roy. As. Soc.' vol. xii., which in its outline follows the design of an alphabetical \( \frac{\pi}{2} \). But, in treating of Gupta numbers, I must fairly warn my readers of a preliminary difficulty that I have experienced in regard to the correct point from whence their expensents should be viewed. The Nasik inscriptions display the symbol for one knadred written perpendicularly; and if that be the correct direction of the cipher in the general alignment, the Gupta dates running in frost of the profile of the King ought to be read Mongol fashion, like the pasallel names of the monarchs of the Gupta

In conclusion, I sum up the results of the present state of the enquiry by the exhibition of the lithographed plate of figures [xl. a] regarding which I have merely to add, that the second compartment includes all such symbols, whether lapidary, numismatic or graven on metal, that I am generally prepared to recognise. The third column reproduces Prinsep's primary conjectural arrangement of the ciphers and their supposed variants. The remaining spaces are filled in with the products of Dr. Stevenson's investigations, but I must warn my readers, that I have taken a double liberty with that author's materials; on the one hand, I have copied my examples of each cipher from the transcripts of the original facsimiles of Lieut. Brett, which are lithographed at large in the Bombay Journal, in preference to following the outlines entered in the companion table of numbers given in that Journal, and supposed to be compiled from the same sources.

On the other hand I have ventured to insert, subject to correction, two signs for 2, which Dr. Stevenson does not definitively acknowledge in his list; but which I obtain from his rendering of inscription No. vi.1 The third figure for hundreds, under the Satrap heading, is also of my introduction, under similar authority.—E.T.]

#### EXPLANATION OF PLATE XIL

Fig. 1, (from Steuart's plates), a silver hemidrachma.

Fig. 11, a coin belonging to Mulla Feroz of Bombay.

Fig. 13, a coin found by Capt. Prescott at Palhanpur in Guiarát, presented to me by Mr. Wathen.

These three coins have all the same legend, but No. 11 exhibits the application of the vowel i in two places, which the others want: the legend thus completed is,

Rojna Kahatrapasa Rudra Sahasa, Swami Jina Damoputrasa, "Of the Royal Satrap, Rudra Sah, the son of the lord Jina Dama.

and Buddha Gupta coins seem to necessitate a supposition of a contrary mode of distribution. I have entered the outlines of the Gupta numerals, both tens and units, in accordance with this somewhat arbitrary arrangement, leaving the point fairly open to correction, when more numerous and more perfect specimens of this coinage may decisively instruct us on the general question.

'Jeur. Roy. As. Soc. of Bombay,' vol. v. p. 53.

The title of Jina Dámá, 'votary of Buddha,' is a better reading than Jina Dámá, 'subduer of that sect, formerly adopted. [My No. 11].

Fig. 2, (from Steuart's plates), a coin of Aga Dámá, son of Rudra Sáh. [No. 10].

Réjna Kehatrapasa Aga Dámna, rájna Kehatrapasa Rudra Sáha putrasa.

Fig 3, (ditto), a coin of Vijaya Sáh, son of Dámá Sáh. [No. 9].
Rojna Kshatrapasa Vijaya Sáhasa, rejno mahd Kshatrapasa Dámá Sáha putrasa.

Fig. 4, (ditto), a coin of Vira Dámá, son of Dámá Sáh. [No. 7].
Rojna Kshatrapasa Viradóma, rájno mahd Kshatrapasa Dámá Sáhas putrasa.

Fig. 5, (ditto), a coin of Rudra Sáh, son of Vira Dámá. [No. 13].
Rájno mahá Kshatrapasa Rudra Sáhasa, rájno Kshatrapasa Virddámá putrasa.

Another coin, apparently of this Rudra, in my possession, fig. 26, has a date which may be read 283; I find I have two coins of this prince (one given me by Mr. F. Stainforth). Colonel Stacy has also two of the same; they may be known by the epithet mahd.

Fig. 6, (ditto), a coin of Viswa Sáh, son of Rudra Sáh. [No. 4].
Edjina Kehatrapasa Visua Sáhasa, rajno mahá Kehatrapasa Rudra Sáha putrasa.

Fig. 7, (ditto), a coin of Atri Dámá, another son of Rudra Sáh; behind the head, but more distinctly in my own coin (fig. 25), is the date 360? [No. 2].

Rájno mahá Kehatrapasa Atri dámna, rájno mahá Kehatrapasa Rudra Sáha putrasu.

This name is the nearest approach to the Ari Dama of the inscription, who, however, was the son of Swami Chastana. Colonel Stacy has also a coin of Atri Dama.

Fig. 8, (ditto), of the same prince, introduced as shewing more clearly the name of his father.

Rájna Kshatropasa Atri . . . . . . . . . tropasa Rudra Sáka putrasa.

Fig. 9, a coin of Visva Sáh, son of Bhatri Dámá. [No. 3].

Rájno Kshatrapasa Vissa Sáhasa, rájno mehá Kshatrapasa Atri Dámá putrasa.

This coin has a date, which may be read 323, in which case it must precede the last two: the father's name was before read as Atri Dámá, whence the misplacement.

Fig. 10, a coin of Swámí Rudra, son of Swámí Rudra Dámá, in the obverse, the figures 39 (perhaps 390). Another has 385. [No. 12].

Rájna maká Kehatropasa Svodmi Rudra Sáhas, rájno mahá Kehatropasa Svodmi Rudra Dámá putrasa.

Fig. 12, a new name, or new as to the second title; Rudra Sáh, son of the great Satrap Rudra Dámá, was presented to me by Lieut. E. Conolly, from Ujcin.

Rájna Kahatrapasa Eudra Sáhasa rájna mahá Kahatrapasa Rudra Dámá (?) Sáha putrasa,

This is the only coin which bears the name of the repairer of the bridge, and that rather dubiously, as the father of the prince who coined the piece. It has a date on the obverse, which I have interpreted 390, like the preceding.

Fig. 15, a silver coin belonging to Mulla Feroz of Bombay, similar to Mr. Steuart's coin, fig. 3. [No. 9].

Rájna mahá Kehatropasa Vijaya Sáhasa, rájna mahá Kehatrapasa Dómá Sáha putrasa.

ig. 14, a copper coin, unique, discovered by Lieut. Conolly at Ujein, and placed in my cabinet through his kindness. Obverse, a bull, with a marginal legend, apparently Greek, some of the letters seeming to form the word Basileus, etc.

Rajno maké Kskatra (pa) . . . . the remainder of the legend lost.

The letters are larger and better formed on this than on the silver coins. Most copper coins of the series exactly resemble the silver ones with a head on the obverse. Col. Stacy has a good specimen, of which the obverse (fig. 27) has apparently a date.

It is now time that I should advert to the epoch of the Sah kings and the position in which the somewhat difficult question involved at present stands. Prinsep's opinions are reproduced above in their entirety. In continuation of these researches, I myself attempted, some years ago, to determine more precisely the period to which the rule of this dynasty should properly be ascribed; and I selected on that occasion, as the era best calculated, in general coincidences, for the due explanation of the figured dates extant on the coins, the cycle of Srí Harsha; a system of computation at that time only recently made known to us under the authority of Albirúní, whose work has already been largely referred to in these pages. In arriving at this determination, I did not neglect to consider the claims of other eras whose initial dates promised in any way to accord with the requisitions of the various historical and numismatic evidences derivable from independent sources. Notwithstanding certain leading recommendations that offered themselves in favor of the Buddhist era, I saw cause to reject unconditionally all idea of its title to rule the recorded registers.3 The Seleucidan era was also tested

<sup>&</sup>lt;sup>1</sup> ['Jour. Roy. As. Soc.,' vol. xii., p. 1 (1848).]
<sup>2</sup> [ My present conclusion is that the date of the death of Sâkya was never generally used in ancient times either for civil or religious computations, otherwise it would be hard to account for the impossibility of fixing its correct epoch, even in the

in its more obvious applicability to the local or epochal demands; and though many arguments were seen to be suggested in support of its selection, which have since been even strengthened by fresh combinations, I am constrained to declare—apart from the slightest desire to adhere to first impressions—that I still give the preference to the Sri Harsha era!

Albirání's account of this cycle will be found quoted at large, p. 166, 'Useful Tables'; and though it will be seen that he himself confesses to doubts and difficulties in regard to its origin and true initial date, I am, for the moment, content to take the fact that some such scheme of chronological admeasurement, reckoning from an event proximate to 457 B.C. or 400 before Vikramaditya,' was actually once in use in India, and that the memory thereof, whether distinct and definite, or jumbled and perverted, remained current in the land till the 11th century A.D.

We are not yet in a condition to discuss exact annual or

days of Huen Thsang, who, in his own words, shows how important, and yet how difficult of determination, this point was held to be among the Buddhist communities of India when he sojourned amongst them.]

I I allude prominently to the concession of Greek supremacy, which, it will be seen, I have admitted more definitely since I last wrote on the subject,—though the abnegation of the employment of dates on the Bactrian coins, from whose types the Sah money was copied, detracts somewhat from the value of the inference. One of the previous obstacles to the admission of the dependence of the Sah kings, was the doubt respecting the absolute import of the term again, suggested by Prof. Wilson, who remarked, 'Ariana Antiqua,' p. 205, 'Kshatrapa admits etymologically of its being explained chief or protector of the Kshatriya, or martial race, and may possibly be the origin of the Persian title Satrap, as Prinsep supposes, although there is some incompatibility in the assignment of the titles of Raja and Satrap to the same individual.' On reconsideration, I do not quite admit the force of the latter reason, and the identification of the again, as the titular equivalent of the Greek ZATPAHHZ, seems now to be set at rest by the recurrence of the term in the Bactrian Pali as Phily (Inscriptions, vol. i., pp. 99-146, Bactrian coins infra); and in Indian Pali as IALLA, pl. zliv., fig. 14.

as 7Abb., pl. xiv., ng. 14.

2 [ Major Cunningham has originated a speculative date of 477 B.c. as 'the era of the Nirvāna of Sakya Sinha, not as established in 543 B.c., but as generally believed in by the early Buddhists for a period of several centuries.' This scheme is based on the fact of Asoka's conversion to Buddhism falling 218 years after the Nirvāna, the former being fixed from other sources at 259 B.c.; hence the Nirvāna itself is assigned to B.c. 477 (259 + 218). A subordinate section of the argument is grounded upon Kanishkas having 'flourished' an even 400 years after the Nirvāna, and yet Major Cunningham, in the same page, while objecting to my inferences, naively remarks—'The difference of exactly 400 years between the dates of Srf Harsha and of Vikramaditya is, to say the least, very suspicious,'—'Jour. As. Soc. Beng.', vol. vii. of 1854, p. 704.]

monthly dates; an approach to the truth is all we need be concerned with for the time being; for, while the arguments pro and con extend to questions of centuries, we can afford to leave a very open margin for discretional modifications among the units and tens. I do not propose to recapitulate at any length my original speculations in regard to the correct epochal position of the Sáh kings, but it is needful that I should notice any confirmation my opinions may since have received, as well as any flaws, real or imaginary, that may have been detected by others in my reasoning or inferences.

Amongst other questions that arose during the course of my examination of the materials then available for the illustration of the history of these administrators, was that of their partial or complete independence; and it will be seen that though the balance of evidence appeared to favor the latter supposition as regarded the later members of the dynasty, yet that I reserved a full option for the recognition of the subjection of the earlier rulers of the line to Greek supremacy.

In addition to this, in the detail of the coins themselves, while speaking of the obverse legend on a coin of Rudra Sáh, son of Jiwa Dámá, as 'a possible corruption of Aionyxioy,' I added, 'there is a king of this name among the Bactrian Greeks, made known to us by his coins, which, in their types, seem to connect him with Apollodotus.' This notion has been improved upon by Prof. Lassen to an extent that I am scarcely prepared to follow him in. His theory seems to be, that I swara Datta was invested with the office of Satrap about the commencement of the 4th century of the era made use of on the coins (i.e. circà 157 B.C.), and that, about this time, Apollodotus must have been king; hence it is inferred that he was the Suzerain who raised I swara to his local honours. It is further added, 'Dionysios, whose name appears sufficiently clear on

<sup>&</sup>lt;sup>1</sup> ['Jour. Roy. As. Soc.,' vol. xii., pp. 29, 32, 45, 46.]

<sup>2</sup> ['Jour. Roy. As. Soc.,' vol. xii., p. 52. See also Catalogue infrd; Dionysius Hemidrachma, No. 1.]





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Rudra Sinha's money, reigned circá 113 s.c.' And, finally, the Professor imagines he detects the imperfect orthography of the name of Hippostratus on the obverse of the coins of Rudra Sinha III. Suffice it to say, that the author, so far from contesting my dates or their attribution, introduces us unintentionally to a new feature regarding them, in a purpose their originators could but little have contemplated—a rectification, by their means, of the epoch of the Greek Suzerains, under whose auspices the coins are supposed to have been issued.

I next pass to Major Cunningham's review of the Sah period; and, as he contests my inferences, I permit him to state his case, in some detail, in his own way:—

\*3rd. The independence of the native princes of Gujrat between 157 and 57 n.c. is completely at variance with the Grock accounts of Menander's comquest of Sarioustos or Suráshtra, between 160 and 130 n.c., which is further authenticated by the long protracted currency of his coins at Barygúza or Baroch.

'4th. The alphabetical characters of the Surfashtran coins are so widely different from those of the Pillar and Rock Inscriptions, and, at the same time, are so much similar to those of the Guptas, that it is impossible not to conclude that there must have been a long interval between Asoka and the independent Sah kings, and an almost immediate succession of the Sah kings by the Guptas. . . . .

'5th. The author of the Periplus of the Erythrean sea, who lived between 117 and 180 A.D., states that ancient drachmas of Apollodotus and of Menander were then current at Barygaza (Hudson, 'Geog. Min.', i. 87); this prolonged currency of the Greek drachmas points directly to the period of the Indo-Scythian rule; for though we have some hundreds of their gold coins, and many thousands of their copper coins, yet only one solitary specimen of their silver coinage has yet been discovered. [A mistake: the coin is copperplated over; see wyrd, Catalogue, under Kadphises]. The Indo-Grecian silver probably continued current until after 222 A.D. when the Indo-Scythian power began to decline. From this period, about 250 A.D., I would date the independence of the Sah kings, and the issue of their silver coinage, which was a direct copy in weight, and partly in type, from the Philopater drachmas of Apollodotus.'—'Bhilsa Topes,' p. 149.

In regard to the criticism in paragraph 3, I have only to observe that, had I exclusively argued for the absolute and continuous independence of the Sáh kings of Gujarát, the objections therein advanced might be held to be fairly stated. But even Major Cunningham's own date of 160-130 s.c., if admitted, need not interfere with the concession of a subsequent assertion

<sup>&</sup>lt;sup>1</sup> ['Indische Alterthumskunde,' vol. ii., p. 794.]

Rudra Sáh, son of Rudra Sáh. (My No. 5, p. 91, infrá.)]

of independence on the part of the local governors; and the concluding argument, though the author seems indisposed to allow it, has been refuted in anticipation by Vincent's observations, to which I had given every prominence in my paper which formed the subject of Major Cunningham's comment: had the author printed or even noticed the gist of my argument on the opposite side, and then replied to it, I should have been anxious to have treated his reasoning with more respect than I am able to accord to a mere reiteration of a fact which bears, at the best, an alternative interpretation.

With reference to the ratiocination embodied in the fourth paragraph, I may remark that I have already replied to the chief points involved; but as Major Cunningham and myself differ so completely in our fundamental tests of the progress of writing, and as I am therefore equally unprepared to accept his estimates of similitudes, it would be a sheer waste of time my arguing up from minor details, or attempting to reconcile them, when I have other and less fallacious means of arriving at a judgment.

In respect to the data and inferences embodied in the fifth paragraph, I would simply quote Major Cunningham's own words in regard to the general question between us—'We agree as to the facts, but differ in our deductions.'

My original proposition for the emplacement of the Sáhs contemplated the inclusion of all their dated coins within the fourth century of the Srí Harsha era, and inferentially confined the thirteen kings, whose numismatic testimonies had thus supplied us with epochal records, between s.c. 157 and 57. Among other pure and avowed speculations, which the open nature of

<sup>&</sup>lt;sup>1</sup> ['That the coins of these princes should pass current at Barugaza is no more uncommon than that the Venetian sequin and the imperial dollar should be at this day current in Arabia, or that the Spanish piastre should pass in every part of India and the East; that is, round the world, from Mexico to Manilla, and in some instances, perhaps, from Manilla to Mexico again.'—Vincent, 'Commerce, etc.' ii. 204.]
<sup>2</sup> ['Jour, As. Soc. Beng.,' vol. xxiv. (1855), p. 90; also 'Jour. Roy. As. Soc.,' vol. xii., p. 25.]
<sup>3</sup> ['Bhilsa Topes,' p. 145.]

the question and the absence of positive information to a certain extent invited, I was led to remark, in referring to the wellascertained average of the length of Indian reigns, that the thirteen accessions in question 'should, under ordinary circumstances, be represented by a sum of more than two centuries instead of being compressed into less than one;" and I further added, 'the almost unvarying similitude that pervades the entire suite of the Sáh coins, in its simple mechanical indication, implies a comparatively speedy sequence of fabrication.' In endeavouring to account for the brief duration of the sway of these potentates, I conjectured a possible republican form of government under which 'two or more rajas were simultaneously invested with a share in the conduct of the state, or, if elected as sole rulers for the time being, the periods of retention of authority were limited directly and definitively by law, or terminable at the will of the majority.' However, these difficulties are certainly more simply and satisfactorily explained by the supposition of a nomination of another description originally emanating from some Suzerain authority to delegated Satraps or governors of provinces.

As regards the consecutive succession of these princes, we have hitherto been compelled to rely upon patronymics and other indeterminate vouchers; and, though it is a question whether our power of defining the values of the date ciphers is sufficiently advanced to authorise our following a serial arrangement based upon their interpretation, we may still profitably test the process with this reservation. The fairly deciphered and reasonably congruous dates determine the order of succession as follows:—

	LIST OF SAH KINGS.	DATES,
1	1. Yswara Datta, son of Varshas	None.
	2. Atri Dámá, son of Rudra Sáh	
	3. Viswa Sáh, son of Atri Dámá	
	4. Viswa Sinha, son of Rudra Sáh	323, 328, 335.
	5. Rudra Sáh, son of Rudra Sáh	330.
- 3	1 (' Love Roy As Soc.' vol. xii., p. 37.1	te individual.]

1 1 1

	LIST OF SAH KINGS.	DATES.
6.	Dámá Jata Sriyah, son of Dámá Sáh	344.
7.	Vira Dámá, son of Dámá Sáh(no d	ate deciphered).
8.	Dámá Sáh, son of Rudra Sáh	345.
9.	Vijaya Sáh, son of Dámá Sáh	353, 354, 355.
0.	Asa Dámá, son of Rudra Sáh	370.
1.	Rudra Sinha, son of Swámí Jíwa Dámá¹	374, 375.
2.	Swámí Rudra Sáh, son of Swámí Rudra	
	Dámá	384, 390.

It results from these dates, however imperfect in their comprehensive series, that either there was a double appointment of simultaneous effect, or an indeterminate periodical supersession and interchange of office-bearers, obeying the fiat of the feedal lord, in the one case; or, following the constitutional order occasionally interrupted by the revolutionary convulsions of independent government, in the other. We are still unable to identify the Swami Rudra Dama, son of Swami Chandana, of the Girnár inscription, with any of those monarchs whose mints have supplied us with records of their rule; but looking to the delayed introduction of the extra title of Swami—as now defined by the list adapted to the dates-we may, for the present, conjecture the individual to have been the father of Swámí Rudra Sáh; and may even, with but slight stretch of imagination. shadow forth an association of the dubious inscription date of \*72, with his fitting place in the order of succession and the independence then achieved, to which he lays claim in his monumental writing.

I next proceed to notice such numismatic novelties of this series as have come to light since Prinsep wrote.

Foremost and most important among these are the coins of Yswara Datta, the son of Varsha, the first Rája of my list.

The obverse legends of the three specimens I have had an opportunity of inspecting are, like the rest, couched in imper-

<sup>1 [</sup> A private individual.]

fect Greek letters, the best representation of which is as follows: TITYTETIQUEYATTION. The exergue is, however, remarkable in its contrast with the subsequent series, in having no cipher date, which would seem to indicate that the system of marking the year of issue was not as yet introduced.

The reverse bears the subjoined legend:

## रची मह चचपस देखर दत्तस वर्ष पुथ-1

Rájno mahá Kshatrapasa Iswara Dattasa Vareha putha-

The coins of Dama Jata Sriyah are also among our later discoveries. Dr. Stevenson first published a notice of a coin of this prince from the Junir hoard (August, 1846) I have since met with two or three further specimens of these rare coins.

The reverse legend runs—

#### रची मह चवपस दमजट श्रीयः रची मह चवपस दम सह पुवस Rájno mahá Kshatrapasa Dámajata Sriyah Rájno mahá Kshatrapasa Dám4 Sáha putrasa.

The following readings of the coin legends of Dámá Sáh, the son of Rudra Sah, are given on the authority of Dr. Bird, who transcribed them for me from the originals in his own possession in 1848.

### रची मह चवपस दम सहस रची मह चवपस ब्द्र सहस पुवस

Rájno mahá Kehatropasa Dámá Sáhasa Rájno mahá Kehatropasa Rudre Sáhasa putrasa.

Finally, I have to advert to the unpublished coins of another Swámí Rudra Sáh, whose patronymic is only imperfectly retained on the surfaces of the limited number of specimens that have come within my cognisance.2

#### र्च मह चवपस थम रुद्र सहस र्च मह चवपस खम सत्व सह पुवस Rájno mahá Kshatrapasa Swámi Rudra Sáhasa Rájno mahá Kshatrapasa Swámi

Satya Sáha putrasa,

These coins are chiefly remarkable in their accordance, in the style and fashion of their Sanskrit legends, with the approximate specimens from the mint of Swami Rudra Sah, No. 12: and the more extensive debasement of the Greek exergue on the obverse.—E.T.]

<sup>&</sup>lt;sup>1</sup> [The concluding letter is defective in all the three specimens, the lower portion only being visible in each. What remains seems to form a portion of an ordinary #, with a second line below the ordinary subjunctive sign of that letter.]
<sup>2</sup> [Lient.-Colonel Bush, Bengal Army—one silver piece. G. H. Freeling, Esq., Bengal Civil Service—one silver and one plated coin.]

Fig. 16. In this silver coin found in Katch in 1837, and presented to me by Mr. Wathen, the central emblem of the reverse is changed to a kind of trident; the legend is also altered from that of a Satrap to one of a paramount sovereign:

#### परम भानुवीर राजाधिराज श्री कुमारगुप्त महेन्द्रसा

Parama Bhanuvira Edjadhirdja Sri Kumara Gupta Mahendrasya.

Of the paramount sovereign the heroic king of kings Sri Kumara Gupta Mahendra.

Fig. 17, another of the same kind, having the same Sanskrit legend, but, behind the head, the Greek letters may be read ononor, or RAO NANO? it was presented to me with the last by Mr. Wathen.

Figs. 18, 19, 20, and 21, have the same symbol, but the workmanship is very much deteriorated. The legend on them all has at length been deciphered by the collation of several specimens presented to me by Mr. Wathen, and found in various parts of Katch, Kattywár, and Gujarát, by Capt Prescott, Capt. Burnes, Dr. Burn; as well as the few inserted in the plates of Mr. Steuart's coins.<sup>1</sup>

#### परम भगदतम राजैश्रीकान्दगुप्त कमादित्व

Parama Bhagadata ma (ha) Roja Sri Skanda Gupta (vi) kramaditya.

But as I have a larger assortment of the coins of the same king to introduce into a future plate, I will postpone further mention of this series for the present.

[I append to this essay my latest classification of such silver coins of the Guptas as are associated with the types last adverted to by Prinsep.

## SRI GUPTA.

Class A: Silver, weight 31 grains. Mr. G. H. Freeling, Bengal Civil Service. Unique.

Obverse:—Device, the original type of the Sah head, apparently unchanged in outline or details.

LEGEND, as usual, in imperfect Greek characters, the concluding six letters of which alone are visible, thus—ACXOXO

Reverse: —Device, a singular figure that may possibly represent the early design of the Gupta peacock as rendered by the local artists, beneath which is a linear scroll of three semi-circles similar to that

<sup>&</sup>lt;sup>1</sup> By a letter from Prof. Wilson I learn that Mr. Steuart's plate is to appear in the Royal Asiatic Society's Journal; but that it had time to journey to India and back before the outcoming number went to press! I regrot I am thus deprived of the power of adding to this note the observations of the learned in England on the Surashtra coins.—J.P.

seen in continued use on certain silver coins of Skanda Gupta;1 above the main device are retained the Sah cluster of stars and a minute half-moon seemingly borrowed from the same source.

LEGEND-

## 2-1742 + 232 A 14 - 222 यी न्द्रगुप्तवक्रमद्रस्य श्रीगुप्तकस्त्रहरू

Prof. Fitz Edward Hall proposes to amend my transcript, thus-

## श्रीनन्द्रगप्त विक्रमेन्द्रज श्रीग्रप्त कीलालेन्द्र --

To this he assigns the following translation: "The auspicious, Kílálendra Srí Gupta, son of the auspicious Nanda Gupta, an Indra in prowess."

If this should eventually prove to be a piece of the Sri Gupta, the founder of the dynasto known by his name, it will establish a claim on our attention, altogether apart from its novelty as the unique representative of the money of that king -in the evidence of the close and direct imitation of the technic art of the Sah coinages, which it develops in so much more distinct a degree than the local issues of the Gupta family of a later date. Indeed, this association is so striking that I was, at first sight, almost inclined to modify my original impression of a deferred revival of the Sah coinage by the Guptas, on their possessing themselves of the province of Sauráhstra, and to doubt whether it would not be necessary to approximate the two races more closely in point of time, in order to explain with any plausibility the mechanical coincidences of the coinage; but, though these will be seen to be strongly marked in the case of the obverse, or conventional portion of the die, the reverse, or dynastic stamp, is materially changed, both in the leading device and, more important still, in the shape of the lettersso that, in this respect, all my early arguments still hold good : \*

<sup>&</sup>lt;sup>1</sup> ['Jour. As. Soc. Beng.,' vol. iv., pl. xlix., figs. 4, 5; vol. vii., pl. xii., fig. 19; 'Jour. Roy. As. Soc.,' vol. xii., pl. ii., figs. 43, 44; 'Ariana Antiqua,' pl. xv., fig. 20. Prof. Wilson, in speaking of the reverse device of this particular coin, describes it as 'an ornament like a disintegrated Chaitya.'
<sup>2</sup> ['Jour. Roy. As. Soc.,' vol. xii., pp. 16, 17.]

and, in regard to the barbarized Greek, the inheritance of Sáh imperfections; there need be no difficulty in recognising thus much of the power of imitation of its letters, when we know that on other mintages the Gupta artists were able to achieve fully intelligible Greek adaptations of Eastern names.

#### KUMARA GUPTA.

Class B: Pl. xxxvii., figs. 16, 17; 'Jour. Roy. As. Soc.,' vol. xii., pl. ii, figs. 39, 40, 41, 42; 'Ariana Antiqua,' pl. xv., figs. 17, 18.

Obverse:—Head of the king in profile: the outline and design are nearly identical with the Suráshtran prototype—the mintage of the Sáh kings—at the back of the head is ordinarily to be seen a mutilated portion of the Scythian title PAO NANO. This important legend affords another link in the direct association of the Guptas with the Indo-Scythians, which is here the more marked, in that, while the device itself is servilely copied from the Sáhs, their obverse Greek legends are superseded by this new title.

Revense:—It is difficult to determine satisfactorily what the emblem occupying the reverse field may be intended to typify, but the most plausible supposition seems to be that it displays an advance upon the conventional representation of the peacock under Western treatment, following out the artistic notion of that bird given in Sri Gupta's coin.

LEGEND :-

#### परम भगवत राजाधिराज श्रीकुमार ग्रुप्त महेन्द्र ख

Parama Bhagavata Rájádkirója Srí Kumára Gupta Makendrasya.

The second word of this legend is the only portion of the whole that is at all open to question; it has been read Bhánuvira by Prinsep,¹ but this is not by any means a satisfactory interpretation. The first and third letters are fixed and constant in the various examples, and are properly rendered in each case as w and w; the second and fourth letters vary considerably in outline on the different specimens; the second letter I have never yet met with in its perfect shape as when tried by the test of the win Gupta, indeed the majority of the coins display it more after the form of a w, as that consonant is found later in

<sup>&</sup>lt;sup>1</sup> [ Prof. Wilson ('Ariana Antiqua,') has suggested Bhattaraka (?) which the Udayagiri inscription ('Bhilsa Topes,' p. 151) rather recommends to our notice.]

the legend in Mahendrasya. The same remark also applies to the final 7. I see that Prof. Mill has conjecturally supplied the word Bhagavata in the prefix to Kumára Gupta's titles on the Bhitárí Lát ('Jour. As. Soc. Beng.,' vol. vi., p. 4), but Prinsep's facsimile of the inscription, though it accords the needful space for the exact number of letters, gives the final as a manifiest ₹; in saying this, however, I must remind my readers, that in the alphabet in question, the slightest possible inflection and continuation of a line constitutes the essential difference between the two letters न and त, and on the other hand the local copper plates of the Valabhis render the ₹ very much after the shape of the Eastern त, while the indigenous त is but little different from the न of the coins under reference. And finally as the words Parama Bhagavata appear in all their indubitable orthography on the succeeding coins of Skanda Gupta, we may fairly assume a mere imperfection in the expression of the individual letters and leave the word as it has been entered in the legend above.

The coins under notice are not always complete in the Sanskrit legends; for instance, an otherwise very perfect piece in the cabinet of the Royal Asiatic Society has the word राजाधान abbreviated into राजाधा; and No. 39, pl. ii., 'Jour. Roy. As. Soc.,' vol. xii., has the same word contracted to राजाधिर.

#### SKANDA GUPTA.

Class C: Pl. xxxvii., figs. 18, 19; 'Jour. Roy. As. Soc.,' vol. xii., pl. ii., figs. 43, 44; 'Ariana Antiqua,' pl. xv., fig. 20.

OBVERSE, as in class B, Kumara Gupta, but the execution has greatly deteriorated; on some specimens traces of the word NANO are still to be seen.

REVERSE:—The device in this class of money, appears to offer a more direct imitation of that of the Sri Gupta pieces, than did the intermediate Kumára reverse types, these latter are seen to reject the foot scrolls and to vary the details of the centre figure to a considerable extent.

Legend:—परम भगवत श्री स्कन्द् गुप्त कमादित्व Parama Bhagavata Sri Skanda Gujta Kramáditya. Prinsep, in his collated reading of the legends on these coins adopted the letter म (for महा) as occurring after the word भगवत [or भगदत as he made it], which he found to be followed by the title of राज, which precedes the name of the monarch. This rendering, he would seem to have drawn from fig. 29, pl. ii., Steuart ('Jour. Roy. As. Soc.,' 1837); but as the like letters do not generally recur, I have marked this as the exception rather than the rule.

The weights of these coins vary from 23 to 29 grains.

Class D: 'Jour. Roy. As. Soc.,' vol. xii., pl. ii., figs. 45, 46; 'Ariana Antiqua,' pl. xv., fig. 19.

OBVERSE: -Crudely outlined head, with traces of the title NANO in front of the profile.

REVERSE:—Figure of Nandí identical in form and position with the emblem on the seed of the Valabhi family as found attached to their copper-plate grants. ('Jour. As. Soc. Beng.,' vol. iv., pl. xl., and p. 487).

LEGEND :- [Restored.]

#### पर्म भगवत श्री खान्द गुप्त क्रमादित्य

Parama Bhagavata Srí Skanda Gupta Kramáditya.

These legends are frequently very incomplete, varying in the number of letters in each.

The standard of these coins is very uncertain, rising from a weight of 21 to 30 grains.

Classes E, F, G. [The references are prefixed to each variety.]

Obverse:—The usual head, generally ill-defined, but still identical in many respects with the original device on the obverse of the Sáh medals; it is occasionally also accompanied by distinct traces of the word nano.

Reverse:—Central symbol in the form of an altar, which is supposed to represent the common altar-shaped receptacle of the sacred Túlsí tree of the Hindús. Legends restored.

Class E: 'Jour. Roy. As. Soc.,' vol. xii., pl. ii., fig. 49.

परम भगवत श्री स्कन्द्गुप्त क्रमादित्य

Parama Bhagavata Srí Skanda Gupta Kramáditya.

CLASS F: 'Jour. Roy. As. Soc.,' vol. xii., pl. ii., fig. 50. परम भगवत श्री स्कन्द गुप्त परमाहित्व

Parama Bhagavata Srí Skanda Gupta Paramáditya.

CLASS G: 'Jour. Roy. As. Soc.,' vol. xii., pl. ii., fig. 51. परम भगवत श्री विक्रमादित्य कान्द् गुप्त

Parama Bhagavata Sri Vikramiditya Skanda Gupts.

The irregularity in the completion of the legend, noted as occurring on Skanda Gupta's coins with the bull reverse, appears in a still greater degree in those of the present class.

The weight of these coins is more than ordinarily unequal, rising from 221 to 33 grains.

Though not properly susceptible of classification with any Gupta series of coins, it is as well to take this opportunity of noticing in connexion therewith a species of money which seems to constitute an independent derivative from the same Sauráshtran type that served as a model for the local currency of the Guptas in certain western provinces of their empire.

I advert to the pieces figured as Nos. 6 to 8 and 9, pl. xxvii.¹

Prinsep, at the moment of their publication (December, 1835), scarcely attempted any decipherment of the certainly very unpromising legends, and was equally at fault in regard to the reverse device which he described as 'a symbol in the form of a trident;' when, subsequently, he came to take up the general subject of the Sáh and Gupta silver coinage in full detail, he still essayed no advance upon the attribution of this offshoot of their common prototype. In my paper on the Sáh kings,¹ I made some slight progress towards the determination of the purport of the legends; and, apart from the typical coincidences, I was able to demonstrate more precisely the Sáh association in the decipherment of the words **Thi Hei wave** on the margin of the best preserved specimen of the series.

Other examples of this currency will be found delineated in 'Jour. Roy. As. Soc.,' vol. iv., pl. ii., fig. 30; vol. xii., pl. ii., figa, 35 to 38.]
[ 'Jour. Roy. As. Soc.,' vol. xii., p. 64, 16th April, 1848.]

A coin of Mr. Freeling's, of an early date in the serial issue, presenting a well defined and nearly complete legend, materially advances the inquiry, and furnishes a key to the strangely distorted letters stamped on the later emanations from the parent mint, though it leaves us still far from any conclusive assignment of the class of money to which it belongs. I proceed to describe the piece in the ordinary detail.

Silver, weight 27 grains.

Obverse:—The usual Sáh head, apparently but little modified. This surface of the coin is damaged, but fully one-half the marginal space, around the profile, remains uninjured, and in the total absence of any sign of a letter confirms my previous supposition, that the use of the Greek legend was not extended to this class of coin.

REVERSE: - Device, a barbarized imitation of the Minerva Promachos of the Bactrian coinage.

I was once disposed to look upon the singular figure on the reverse of these coins as the Buddhist device of a man: I was led to this conclusion by the similarity of the form of the figure sketched by Jas. Prinsep, in fig. 21, pl. iv., to that occurring on the Behat type of coins; but I now observe that Prinsep, in his second engraving of the same coin (fig. 9, pl. xxvii.), omits the left arm, in its downward position, which constituted the most essential point of Behat identity.

Legend :— यह भुनह्रकसर्घ महचचपरमद्वकक्षभसद्मन

OPTIORAL
READINGS श्रीः स हु ह कृ

The configuration of certain letters in these legends demands a passing notice. The character which Prinsep took for pr, etc., is now satisfactorily proved to be an #: the form is peculiar, but still it bears sufficient affinity to the general idea of the Gupta #. In the later specimens of the coinage, its upper section is distinguished from the ordinary ¶ by the rounding off of the lower portion of the first down-stroke, while the ¶ itself is

<sup>1 [ &#</sup>x27;One item seems safely deducible from the unoccupied margin, to be found around the bust in the breader coins, viz., that the use of Greek or its attempted representation was here discontinued.'—'Jour. Roy. As. Sec.,' vol. xii., p. 63.]
2 [ Pl. xix., fig. 16; pl. xx., figs. 45, 47, etc.]

squared at the base. The nearest approach to identity with this numismatic \(\mathbf{H}\) is to be found in the outline of that character as expressed on the Udayagiri Inscription; but it must be remarked that this similitude affords but little aid towards determining geographical limitation, as the majority of the letters of the inscription itself are exceptional, and do not accord with the characters of the other writings of the same locality. The \(\mathbf{T}\) of these coins takes the same shape as those on Kumára's silver coins, Class B, above adverted to. The remaining letters, as far as they have been definitively identified, seem to follow the ordinary Sáh style.—E.T.]



# OF BLOCK-PRINTING, WITH NOTICES OF UNEDITED COINS.

#### MAY, 1838.

In all Muhammadan countries it is the well-known custom of those who move in the rank of gentlemen to apply their seals in licu of their written signatures to letters, bonds, and other written documents—not as we are accustomed to do it, by an impression on wax, but by smearing the flat surface of the seal with ink, and printing in the manner of type, so as to leave on the paper a white cipher upon a black field. It may be in consequence of this custom, as much as from religious prejudice, that Muhammadan seals are almost invariably confined to letter mottos; seldom ornamented, but, if so, merely with flowers, etc., done in outline; because such only can be faithfully pourtrayed in a type impression, which, of course, cannot at all represent a head or other relievo design.

The money of the Musalmans was in the same manner generally impressed only with the signet or the titles of the sovereign, well

adapted to a flat surface of thin metal.

Seeking an easy and expeditious mode of making public the collection of Muhammadan coins in my own and my friends' cabinets, it thus occurred to me that by forming from them in sealing-wax, or in type metal, an exact counterpart of the die which had been used in striking these pieces, I should be able to use it, in the native fashion, for producing ink impressions along with the ordinary letter type; while, as the coin itself would in every case furnish the mould, every chance of error in copying would be removed: and, though the elegance of a shaded engraving could not be attained, still this would be more than compensated by the scrupulous fidelity of the representation.

My first trial was so encouraging that I at once resolved on carrying

the plan into execution on an extensive scale, and I have now prepared for the press upwards of two hundred coins done in this novel and exceedingly simple manner.

As, however, it will be in every respect more convenient to present them in a continued series as an accompaniment to my tables of the value of Indian coins already published, I propose merely to introduce into the pages of the Journal a few examples of such coins as are new, rare, or, from other causes, worthy of particular description.

But first, in deference to the established custom in such cases, I must assign to this newly-invented art some Greek polysyllabic appellation; and (without intending the undignified lapsus of a pun) I cannot propose one more expressive of the process than Rupography—not from rupee, the common designation of our Indian money, nor yet from the Sanskrit word rupa, 'form, likeness,' but in a genuine and orthodox manner from the Greek ρύπος, sigilaris cera, or scaling-wax, the substance upon which the impression of the coin is first received, and which will itself serve as the printing material, if it be not desired to preserve the block in the more durable material of type metal, by a second transfer from the scaling-wax to a clay or gypsum mould, into which the latter substance can be cast in the usual manner. Some sharpness of outline is lost by this triple operation; and where a great many copies are not required, the rupographical process may be safely confined to the first stage, or simple impression on scaling-wax.

As a first specimen, then, of the capabilities of this art of rupography, I select a coin, or rather medal, purchased by myself some years ago at Benáres. It is of Husain Sháh, generally accounted the last Súfi monarch of Persia; for, after his abdication in a.m. 1135, his son Tamásp held but a nominal sovereignty, the real power being usurped by Mahmúd the Afghán.

Marsden would designate this as one of the medals of the Persian kings properly so called, intended to be hung and worn on the neck. It had, when I bought it, a hasp for suspension; but still I do not imagine it to have been struck for that express purpose, but rather as a crown piece for distribution to courtiers on a birth-day, as is still the custom at Dihlí, at Lucknow, and other native courts. It is of nearly pure silver, and weighs 844.3 grains, a little short of five rupees, and somewhat above as much in value.

Marsden gives the drawing of another medal of the same monarch, which has merely the usual coin inscription.

<sup>&</sup>lt;sup>1</sup> [ I have not thought it necessary to reproduce these facsimiles, in illustration of the mechanical process. I have, however, retained the letter-pross, as forming a portion of Prinsep's numismatic essays.]

The following is the numismatical description of my medal:—
Sultán Husain Shán Sappaví,
Reigned in Persis, A.H. 1106-1135, (A.D. 1694-1722).
Silver.

LEGEND OF THE OBVERSE.

السلطان العادل الهادي الكامل الولي ابو المظفر السلطان بن السلطان سلطان حسين شاء ۱۱۱۸ بهادر خان الصفوي خلد الله ملكه و سلطانه ضرب اصفهان

Onvenau:—The Sultan the just, the spiritual guide, the perfect, the ruler, Abu'l Muzaffer all Sultan bin all Sultan, Sultan Husain Shah, Behadur Khan, of the Safvi race: may God perpetuate his kingdom and his dominion! Struck at Islahan, A.R. 1118 (A.D. 1694).

REVERSE :- There is no God but God! Muhammad is the prophet of God; All is the favorite of God.

Margin:—Ali, Hasan,—Hosain, Ali,—Muhammad, Ja'far,—Músa, Ali—Muhammad, Ali—Hasan, Muhammad.

(The twelve Imams in the order of their succession).

#### SPECIMEN II.

Is a coin presented to me by General Ventura to complete my series of the Pathán sovereigns of Dihlí, being the only one of the founder of that dynasty which I had yet seen. Since then Capt. Burnes has favored me with the sight of a duplicate in less perfect preservation, procured by himself, I believe, at Kabúl. I give it as a specimen of what rupography can do under the most unfavourable conditions.

The form seems imitated from that of the Abbassite khálifs, having the legend in concentric circles written in the Kufic form of Arabic. The facsimile represents exactly by the dark parts where the surface is worn smooth; however, by carefully comparing the two specimens, the whole has been made out satisfactorily with the aid of my brother, Mr. H. T. Prinsep.<sup>1</sup>

It is curious that the common title of Shahdb ul din, by which Muhammad is generally known in Indian history, does not appear on this Ghaznah dirhem, which gives him the two-fold designation of Ghids ul din, 'the supporter of the faith,' and Moaz ul ndsir le din, 'the humbled of the defender to the faith'—(sc. to the Kaliph of

I I have slightly modified Mr. Prinsep's reading.]

Baghdád). Probably the patent for the new title of Shaháb ul din, 'the flaming sword of faith,' given in honour of his brilliant and destructive expeditions into India, had not yet arrived from the court of the Kaliph.' If so, the word tissin (90) in the date may be read wrong.

SHAHAB UL DI'N, MUHAMMAD BIN SAM.

Founder of the Ghort dynasty of Dihli. Reigned A.H. 588-602 (A.D. 1192-1206). Silven. Weight, 73.4 to 92.6 grains.

LEGENDS ON THE CONCENTRIC CIRCLES OF THE OBVERSE,

DITTO OF THE REVERSE.

ضرب هذا الدرهم في بلده غزنة سنة ستة و تسعين و خمس Line 1 مانة

محمد بن سام

[The inscriptions are copied at length in plate xli.]

Onvense: - (From the Koran) - It is he that sendeth his messenger for righteousness,' etc. [Surat, ix. 33, and lxi. 9.]

There is no God but God, Muhammad is the prophet of God!—The mighty sovereign Ghids all dunya va w'dla, Abu'l fatch, Muhammad bin Sam.

REVERSE:-This divhem was struck in the city of Ghaznah, in the year five hundred and ninety-six.

Al Nasir le din illah [the Khalif], the mighty sovereign, Moaz ul din, abu'l Muzaffar, Muhammad bin Sam.

SPECIMEN III.

Among the coins discovered by General Ventura in the great tope at Manikyála, and described in vol. iii., pl. xxi. [v.] figs. 10 and 11, [Art. VI.], were two of the Sassanian type, having Sanskrit legends on the margin of the obverse. I did not then attempt to decipher them, nor am I aware that their explanation has been since effected elsewhere.

Captain Burnes has been so fortunate as to pick up three more of the same curious coins, in his present journey, which are now in my hands, with other rare antique produce of his successful research.

<sup>&</sup>lt;sup>1</sup> [The history of this double nomenclature will be found in detail in my Essay on the Coins of the Pathan Kings of Dihli. London, 1847.]

They have every appearance of having been extracted from some similar ancient monument; which is by no means improbable, for we may be very sure that full half of the fruits of the late explorations of the various topes have evaded the hands of their explorers, and are scattered about the country to be hereafter picked up gradually from pilgrims or professed dealers; for a trade will soon be organized in such articles, if it be not already established. There is no harm in this, as it will tend to preserve such relics from destruction; but we must for the future be on our guard against spurious specimens, which will multiply daily.

Captain Burnes' discovery has been of the greatest service toward the deciphering of the Sanskrit legend: his coins have helped me to the general purport of the marginal writing, even if they have not wholly explained its contents. I found on collating the five legends now at my command, that three of them (vide pl. xli.) were short of the others by two letters, which in the most perfect of Captain Burnes' coins might be clearly read as nita fac. Remembering an analogous omission on one of the Gupta coins of Kanauj, wherein some specimens had the epithet vijavaja and others vijavajanita-both of the same meaning. I concluded that the preceding anomalous letter on all the coins must be a or, and, indeed, it has no small affinity to the modern Nagari and Bengali j. The two preceding syllables, again, there could be no doubt about; being in all five examples 24 deva. Now, devaja and devajanita, 'offspring of the gods,' is the well-known epithet of the ancient Persian monarchs as well as of the Sassanian race. Thus, in the trilingual inscription on the Nakshi-rustam sculpture given in Ker Porter's travels in Persia, vol. i., 548, we have in the Greek character: TOTTO TO HPOCCHON MACAGINOT GEOT APPARAPOT BACIAGO BACI-AEAN APIANAN EKTENOTO GEAN TIOT GEOT HAHAKOT BACIAEAC, which is repeated below in two forms of Pehlvi.

The same title in Sanskrit, devaputra skahán sháhi, it may be remembered, is applied to the king of Persia in the Allahábád pillar inscription, as revised at p. 233, vol. i.

Aguin, on the Sassanian coins, read by the Baron de Sacy as far as they are published by Ker Porter (for I have not yet been able to obtain a copy of the Baron's work on the subject), the Pehlvi legend runs:

Mazdszn beh Skahpura malakán malaká¹ minochatri men yezdan.

<sup>&#</sup>x27;Adorer of Ormuzd, excellent Shahpur, king of kings, offspring of the divine race of the gods."

In the examples given, I should read this passage—Malakén malak Airénan, etc.; but the Sassanian coins require study ere they can be properly made out.





SANSKRIT LEGEND ON SIX INDO SASSANIAN COINS.

Alpha Birrania Birrania in Aller Burrania Capt Harrens from trabest . ቋመደ ተመጀመር መደር ነው። ተመጀመር መደር ነው። ቸያው 1 ልነጥፈር1 = b1 መጣውዊ ሁኔ ላ 2 ጋንደ ይ 및 Empress . 用品品はマンプロスコエのコヨ」」のBARATO Restoration of the legend in the Nagari of the 5th cent PEHLEVI LECEND OF THE DRIVERSE 0fo 3 4 سه طارس ورسال صرب سر لسر بما ملول طريورس ليرريد كاردب ०१० व प्र 010 g co מועוש From the Sasannan coins of Shapun Moral Num to altination of the monder of all strate mile mile Maydazan beh Shahpuhni malkan malka ainan o un-Same commencement in the Ankalis lindam scalpture 39 (9) 31 ) On the cain with the wenged cap, Marcel Num Fr. MOUDI HUBIL DALKKIII Legend on dichem of Midentimed Bin Sam. هلاالدعماع للاعمالة ... مدريع عمر طبع Same الكرة السطاع المعطمة الالادس لالى 22311 914 31128201191 402 350 curtive هو الذي ارسر رسوله لالل و ... مد اماليه السلطان الاعطعة لااله الاالاه عقد الاسالة 3

ereter

WHIGH Land

The natural deduction hence was that the rest of the Sanskrit legend would also turn out to be a translation, or an imitation of the Sassanian formula; and thus, in fact, it has proved to be.

> Indo-Sassanian diritem. Silver, Weight, 53 grains. Legend.

Onvense:—Head of Mithra (Ormuzd); Pehlvi very distinct, but unread; see pl. xli.

REVERSE: --On the field, three letters of an unknown alphabet (like the Armenian?)
or perhaps numerals?

Margin:-

## श्री हितिविर ऐराणच परमेश्वर श्री फा हितिगान देवजनित

Sri kitivira Airana cha paramerwara Sri Vakitigan devajanita.

In this legend the only actual letters at all doubtful are the p and me of parameseura, and the first and last letters of the name. Indeed, the first letter is different in every example, as will be seen in the lithographed plate [xli.], as though they were all different names of the same family. Now to analyse the sentence:—

Hitirira I suppose to be a corrupt writing of **ERCHY** hridivira, 'noble in heart,' equivalent to the Pehlvi word bek, translated by 'excellent.' Airdina cha paramesicara, and the supreme lord of Airdin or Persia, may be rend (perhaps better) Airdin va Parassicara, the lord of Iran and Fars. For the name, we have severally pha, cha, va, gha, or há! followed by hitigón or hitikhán; and, lastly decajanita, as before explained.

I am quite at a less to find owners for such names; and although this is the third time I have alluded to this coin, gaining little by little each time, still I fear we have much to learn before we can unravel its entire history. For the present I leave unnoticed the Pehlvi legend, merely placing under view in the annexed plate corresponding passages from regular Sassanian coins, which, being titles, will soon lead to a knowledge of their alphabet and meaning.

[ As intimated under Art. XV. (vol. i., p. 410), I have intentionally reserved all notice of the bilingual and trilingual emanations from Indo-Sassanian mints, and their subordinate illustrative varieties, until I could associate my latest tentative readings with Prinsep's closing illustration of this interesting division of Oriental Numismatics.

I have elsewhere (vol. i., p. 65) adverted to the obstacles that present themselves to any precise definition of the permutable letters of the Pehlvi alphabet, which may not chance to be supported by the context, or some leading indication calculated to assure its exactitude; but, in the present instance, we have to encounter dialectic modifications and transmutations from other tongues, in addition to the ignorant treatment of a language at the best but imperfectly known to us.\(^1\) The legends I have ventured to designate as Scythic, in virtue of their seeming derivation and the assimilation of certain of their forms to the Tartar alphabets, are to this time simply unintelligible.

The classification of these complicated materials will be seen to present somewhat of a difficulty—even if the data permitted it, they could not well be adapted to any epochal order—nor do the medals sufficiently accord to follow suit under the simple typical arrangement. I am, therefore, reduced to group the different series by the linguistic test, as exemplified by the following outline:—

- A. Scythic (two varieties).
- A a. Seythic and Sanskrit.
- A b. Scythie, Sanskrit, and Pehlvi (two varieties).
- A c. Scythic and Pehlvi.
- Pehlvi and Sanskrit (two varieties).
- C. Pehlvi, Scythic, and Kufic.
- D. Second variety of unidentified characters with Kufic.
- E. Kufic (alone).

Class A: Unidentified characters, supposed to be Scythic. Figs. 9 and 10, pl. xvi., 'Ariana Antiqua.'

I notice the class, represented by the above cited engravings,

<sup>&</sup>lt;sup>1</sup> [For example, of all those who are learned in Zend and its cognate languages—of the various Professors who edit Pehlvi texts, or who put together Grammars of that tongue—no single individual has to this day been able to add one line of translation to the bilingual inscriptions of Hajf-abad (Ker Porter, pl. xv., p. 513; Westergaard, 'Bundehesh,' p. 83; Spiegel, 'Grammatik,' p. 175, etc.), beyond what De Sacy had already taught us in 1793. In brief, our power of interpretation fails us exactly where the Sassanians have omitted to supply us with the Greek translations they appended to some of the parallel texts, which, however, unfortunately extend but little beyond the titular and dynastic preordium of the inscription more immediately in question. I may, however, notice favourably Dr. Haug's tentative interpretations, confessedly incomplete as they are.]

merely as introductory to the several ramifications of the unidentified alphabet on the coins of later date, which form the subject of my present synopsis. I have to refer, however, momentarily to a still earlier exhibition of the literal series in the degradation and gradual transmutation of the original Greek legends, on the lower Kanerki coins, into the conventional forms and symbols of this system of writing—so that the Greek epigraph of PAO NANO PAO OOHPKI KOPANO degenerates into the, to us, confused jumble of signs, which the cognate characters on other medals alone teach us to look upon as real and bond fide vehicles of phonetic expression—now extant upon the pieces engraved as No. 17, pl. xiv., 'Ariana Antiqua'; No. 6, pl. xxii., supra'; and No. 16, pl. xiv., 'Ariana Antiqua.'

The Sassanian proper money, more especially under reference, exemplifies the free and independent use of the debateable character, as opposed to the possible mere mechanical barbarization of a foreign tongue in the other instance, and would seem to evidence the local currency of the speech it was calculated to embody in one section at least of the dominions acknowledging fealty to the successors of Ardeslín Bálbiek.¹ Next in literal simplicity, though probably of a varied site and but little approximate period, must be quoted the series so peculiarly Indo-Sassanian in their identities, which still restrict themselves to this style of writing—Nos. 19, 20, 'Ariana Antiqua,' pl. xvi.

The Indo-Sassanian money with unmixed Sanskrit legends has already been adverted to, but further examples of the sub-ordinate classes may be consulted under the following references:—'Ariana Antiqua,' pl. xvi., fig. 18 (पि.); ibid, pl. xvii., fig. 11, and pl. xxi., fig. 20; 'Jour. Roy. As. Soc.,' vol. xii., pp. 341, 342, etc.; 'Ariana Antiqua,' pl. xvi., fig. 8.

Class A a: (Bilingual Scythic and Sanskrit). Type, fig. 6, pl. xvii., 'Ariana Antiqua.'

¹ [Other specimens of money bearing these peculiar legends may be seen under 'Ariana Antiqua,' pl. xvii., Nos. 12 to 15.]

OBVERSE :- Head facing to the right.

LEGEND in unidentified characters. 'Jour. Roy. As. Soc.,' vol. xii., pl. iii., fig. 21.

REVERSE:—Fire altar and supporters about the pedestal of the altar

श्रीटरे । वहि श्री?

Class A b: (Trilingual, Scythic, Sanskrit, and Pehlvi?).
Pl. v., figs. 10, 11; and pl. xli., figs. 1 to 5.1

OBVERSE: — Device, as in the plate; the tiger-crest is less obscure on other coins.

Centre: - Unidentified characters.

Margin:—Legend also of doubtful import, but expressed in Sanskrit letters.

## श्रीहितिविरखर्लाचपरमेश्वरश्रीषाहितिण्तदेवनारित

The above transliteration, based upon mechanical configurations alone, gives the preferable reading of each character, deduced from a collation of the legends on the numerous coins extant. As the language this legend embodies is, up to this time, unknown to us, there are no precise means of selecting the intentional as opposed to the technically rendered letters. For instance, it is doubtful whether the 6th form should be taken to stand for ख, ऐ, or वे. The 9th letter may be only one of the frequently recurring T's; but I read it as T, in accord with Prinsep, on the authority of one of Sir A. Burnes's coins (now in the possession of General Fox), which gives the character with more than usual distinctness. In the letters 10 to 14, I again follow Prinsep, on the principle of the probability of the combination rather than upon the positive assurance of the imperfectly discriminated letters which compose the word. And, with some such similar tendency, I formerly proposed the substitution of \(\mathbf{q}\) as the modern representative of No. 16, in preference to the optional w or of my author's text, a conjectural emendation since amply confirmed by the configuration of the letter in question on one of Colonel Lafont's coins in the British Museum.

<sup>&</sup>lt;sup>1</sup> [ Also 'Journal Asiatique,' vol. vii. (1839), pl. xvii., p. 34; 'Ariana Antiqua,' pl. xxi., fig. 22; 'Jour. Roy. As. Soc.,' vol. xii., pl. iii., figs. 17 to 20.

Suffice it to say, that if there is little to be said in favor of these definitions, there is no inconsistency or literal difficulty to stand in the way of their acceptance with the values now suggested.

REVERSE:-

In regard to the Pehlvi legend on the left, I have elsewhere explained my reasons for differing from Olshausen's original interpretation of دفت هفتاد secenty-secen.2 His rendering of the final word to the right is faulty, but the second name I consider indubitable; and, like him, I fail at the opening term. though I incline to identify it with the title of رطرخار, in preference to supposing it to be the name of the Suzerain ruler of Khorásán.

Class A b: Variety. Pl. xxxiii., fig. 6.

OBVERSE: - As in Prinsep's engraving. The better preserved specimens exhibit a crest above the wings here visible, in the form of a tiger's head.

Sanskrit legend to the right . . . . . श्री वहार to the left . . . .

Margin :- Legend in unidentified characters. (See 'Jour. Roy. As. Soc ,' vol. xii., pl. iii., fig. 8).4

The Sanskrit legends on the obverse of these coins are indeterminate. Prof. Wilson proposed to amend Prinsep's original reading (vol. i., p. 412) to श्री बह्मन वसुदेव, adding, 'the latter word is unequivocal, but the two last letters of Bahmana are doubtful.'

 <sup>[ &#</sup>x27;Jour. Roy. As. Soc.,' vol. xii , p. 344.]
 [ 'Die Pehlewi-Legenden,' Kopenhagen, 1843, p. 60; and 'Numismatic Chronicle,' vol. xi., p. 133.]
 [ Cf. 'Gildemeister Scriptorum Arabum de rebus Indicis,' Benn, 1837, p. 6; 'Tabari' MS., cap. 115; Haji Khalfa, A.H. 86; 'Abulfaraj,' pp. 116, 183, Pocock, Oxon.; St. Martin, 'Arménie,' vol. ii., p. 18; 'Iba Khordabah' MS., Bodl., No. 433; Masaudi, 'Meadows of Gold,' p. 369.]
 [ See also 'Ariana Antiqua,' pl. xvii. fig. 8.]

REVERSE:-

افزو To the left . افزو

To the right . يون شم دات . بون شم دات . Margin :—Legend similar to that on the obverse exergue.

CLASS A c: (Bilingual, Scythic and Pehlvi).

To complete the classification, I refer to two coins as yet incompletely deciphered in the Pehlvi, and altogether unintelligible in their Scythic legends, a description of which will be found at p. 332, 'Jour. Roy. As. Soc.,' vol. xii.

#### VASU-DEVA.

CLASS B: (Bilingual, Pehlvi and Sanskrit).

Prinsep's delineation, pl. vii., fig. 6,1 sufficiently displays all the typical details of these pieces; I have merely to deal with the legends.

OBVERSE: - To the right of the figure is Pehlvi, but illegible in the specimen engraved.

Or Siv Varet tef for Sri Vasu deva.

ال ودع و و العما العمام العمام كالمام كام

' [Other engravings and facsimiles may be consulted in 'Ariana Antiqua,' pl. xvii., fig. 9; 'Jour, Roy. As. Soc.,' vol. xii., pl. iii., figs. 9 to 15.]

See Anquetil 'Zend Avesta,' vol. ii., p. 341, correctly (See Anquetil 'Zend Avesta,' vol. ii., p. 341, correctly (See Anquetil 'Zend Avesta,' vol. ii., p. 341, correctly (See Anquetil 'Zend Avesta,' vol. ii., p. 341, correctly (See Anquetil 'Zend Avesta,' vol. ii., p. 341, correctly (See Anquetil 'Zend Avesta,' vol. ii., p. 342, ii., p. 343. In truth, in those days, I was but as little in the way of seeing German books, as I have limited facility of reading them now; but I queted, with full and deserved commendation, Prof. Olshausen's treatise, and noticed all other continental works, referring to the subject, of which I was able to obtain knowledge. In his 'Grammstik der Huzväreschsprache' (Wien, 1856), M. Spiegel reclaims the title to priority of interpretation of the opening portion of this sentence, which it seems appeared in May, 1844 ('Jahbr. für wissenseh-Kritik,' Mai, 1844, p. 703). And, further, he desires to

REVERSE :-

To the right श्री वासु देव:॥ Sri Vasu desa.

الع كيالدمس . . To the left . . . العامل سواق

مدول كوسرويدس . . Margin

It will be seen that these coins are not very exact in the Pehlvi rendering of the initial invocation, and there are other signs of indeterminate orthographical expression in the indifferent insertion or omission of the redundant —, or final stop, after the and and the one in the obverse marginal inscription. I have to acknowledge, though I will not attempt to explain, a more obvious divergence, recurring without exception, in the transliteration of the Sanskrit name are Vám, which is reproduced as and plant, in conflicting contrast in the duplicate record on the obverse surface.

A coin, in the possession of Colonel Abbot, equally evincing this peculiarity in its well-executed but now abraided Pehlvi legends, displays the Sanskrit बी वासु देव: under a negative aspect, that is to say, as legible on the original die, but reversed on its stamped produce. With the above exception, I have not much doubt about the obverse renderings, nor do I distrust the inter-

correct my reading of paid a few 110 into me many me. I am not disposed to concede this point, as, apart from the greater probability of the employment of the former formula, the consistency of literal configuration, as developed by the coins, is opposed to the transmutation of the Pehlvi 3 of many into the optional and convertible of the more modern system of writing. I may remark, in conclusion, that an author who is disposed to exact so rigorously his own dues, in such insignificant matters, should have been more precise in his apportionment of the credit of discovery by others. For instance, I find, at p. 26, my alphabets ('Jour. Roy. As. Soc.,' vol. xii., p. 262), assigned to another person. At pp. 27, 32, a complete ignoring of my remarks on the formation of the final of ('Jour. Roy. As. Soc.,' vol. xiii., p. 379), which the author does not very satisfactorily examplify from his own materials; and at p. 176, my rectification of the so-long examplify from his own materials; and at p. 176, my rectification of the so-long examplify from his own materials; and at p. 176, my rectification of the so-long examplify from his own materials; and at p. 181, my rectification of the so-long examplify from his own materials; and at p. 186, my rectification of the so-long example for the derivation of the word (Zeitschrift d. D. M. G. viii. 32).]

pretation of the name of زارلستان Záúlistán on the reverse; but the word that precedes it still continues an enigma, and I hesitate to propose for acceptance either the geographical definition of منجواي the old capital of Arachotia, a religious association with the Sanskrit पूजा worship, or a temporal indication of rulership, of which this may be the undeciphered exponent.

In typical design these coins are in a measure connected with an exceptional style of Sassanian money,<sup>3</sup> attributed to Khosrú II. (A.D. 591—628). The obverse head on these innovations has but little identity with that on the Indo-Sassanian pieces, and is only associated with the device of the latter in the novelty of the front face. The reverse figure, on the other hand, accords exactly with the bust on the eastern money. I have not myself had an opportunity of examining any one of the few extant pieces of the former class, and rather hesitate to propose decipherments on the strength of mere engravings; but as there is only one word about which there is any doubt, I may reproduce the legends as follows:—

OBVERSE:

i [I would note an passant the entire absence of the Pehlvi] = in these legends, the i = j, the Sanskrit q uniformly supplying its place as in the Vendidád, Zend, Vickeriánts; Pehlvi, Kawul.— Anquetil, vol. i. 267.]

<sup>&</sup>lt;sup>2</sup> [ Rawlinson, 'Jour. Roy. As. Soc.,' vol. xi., p. 126; 'Abalféda,' ["] " ~ "; 'Journal Asiatique,' vol. x., p. 94; Pangoni; Reinaud, 'Fragments,' p. 114; 'Ayin-i Akbari,' vol. ii., p. 167.]

REVERSE:

Dr. Mordtmann reads the final word, omitted in the above, as אווינא, Uzaina Chuzistan. I certainly should not thus transcribe the letters as they appear on the Jahrbücher coin; and, possibly, if I did so, I might dissent from the present interpretation: however, as I am not prepared to set copies against originals, I abstain from further comment.

CLASS B: Variety. (Bilingual, Pehlvi, with Sanskrit mintmarks?). Plate xxxiii., fig. 3.1

OBVERSE:

العود كالوس = نبكى ملكا or وفكى ملكا Pehlví legend

The initial letter is convertible as , or  $\omega$ , and is frequently either omitted altogether or inserted in the field apart from its succeeding  $\omega$ . The  $\omega$  itself is aften degraded into a double loop, which alters its character completely. The  $\omega$ , or k with E final, there is no doubt about; and the strange combination that follows, which, in many instances, expresses nothing but  $\omega = \omega$ , proves to be a mere bungling formation of the letters  $\omega = \omega$ , the  $\omega$  being elongated by the addition of the tail stroke, which properly belongs to, and is the distinguishing mark of the  $\omega$  as opposed to the old Sassanian  $\omega$ . The final  $\omega$  of  $\omega$  usually appears on the left of the bust.

Class C: (Trilingual, Pehlvi, Scythic, and Kufic).

I do not design to reproduce any detailed description of the

<sup>&</sup>lt;sup>1</sup> ['Ariana Antiqua,' pl. xvii., figs. 5, 7, 10, etc.]

he Pehlvi as اوهريمزن = ساماد (Médailles de la Dynastie Sassanide, Paris, 1840, pl. i., fig. 1, p. 56). Dr. Mordtmann, again, assigns a coin, similar in its typical style to No. 10, pl. xvii., 'Ariana Antiqua,' to Azermidukht, pl. ix , fig. 31, p. 194, Zeitschrift, etc.]

coins I would group under this heading; a delineated specimen of the class may be consulted in fig. 4, pl. xvii., 'Ariana Antiqua';' and my own attempts at their decipherment, together with facsimiles of the legends, are to be found at p. 329 et seq., vol. xii., 'Jour. Roy. As. Soc.'

I advert to them now merely to complete the reference to the several series connected by similarity of linguistic legends with classes B, and B variety, above noticed.

Silver: weight, 58.4 grains. British Museum.

Obverse:—The usual linear imitation of the old Sassanian head, as adopted by the Arabs.

To the left : The standard monogram and relsey

To the right: Legend in unidentified characters, of the same style as in classes A, B.

Margin:—In Pehlvi letters مراكع, and in Kufic letters the words

REVERSE :- The ordinary fire-altar and supporters.

To the right . . منبس = خبس Khubue.

Margin :-

Upper compartments: unidentified characters as on obverse.

Lower compartments:

To the left . . . . The standard monogram.

To the right . . . . . افزو . . . . افزو

Doubtful dates, 68 A.H. and 69 A.W.

Class D: (Bilingual, variety of unidentified character with Kufic).

To bring under one view the various transitional modifications of Sassanian money that may, by any possibility, bear upon the mixed series already noticed, I would advert to two subordinate classes, the first of which seems in its alphabetical devices to pertain to more westerly nations, though the sites of

<sup>[</sup> See also Olshausen, German text, p. 56: 'Numismatic Chronicle,' vol. xi., p. 130.]

<sup>\* [</sup>Khubus in Kerman, see Ouseley (حبيص) 199; 'Abulféda,' p. 442; Marco Polo Kobinas, p. 107.]

discovery connect it with the Central Asian types above enumerated.

Facsimiles of four of these pieces are given in Fræhn's 'Die Münzen (1832) Nos. 434, 435, pl. xvi., figs. X and 3; and 'Jour. As. Soc. Beng.,' No. 101 (new series), pl. iii. figs. 6a, 7. Here again the epigraphs are bilingual; the legend on the right appears to read from the outside, commencing at the front point of the tiars, and the forms of the letters give it a decidedly Phonician aspect, though for the present their elements defy decipherment. The short word on the left of the Sassanian crown is expressed in Kufic letters, its foot-lines being towards the centre of the piece. Professor Freehn conjectured that the combination on fig. & might be resolved into the title of المهدى the Khalif (A.H. 158-169 A.D. 774-785), and this interpretation receives confirmation from a more legible specimen of the coinage lately acquired by the British Museum.1 On fig. 2 and other coins the word appears to be composed of the letters سلى or مسلى; but on an unpublished specimen of Colonel Anderson's the name is fairly legible as which, it will be remembered, was Al Mahdi's proper designation.2

Class E: Kufic (alone).

I complete the series with a set of medals having many characteristics in common with the money classified under the heading D, though it is a question whether in point of antiquity they are not entitled to take precedence of their bilingual counterparts. The connexion and association between the two is marked both in the general design of the obverse device, and more distinctly in the distribution of the symbols on the reverse, where Ormazd's head, rising from the flames of the fire-altar, pronounces them either derivatives from a common stock, or imitations the one of the other. The peculiarity of the coins of Class E, however, consists in their having attained to the correct

Major Cunningham's collection.] [Price's 'Mahommedan Hist.,' ji. 23. Fræhn, 'Recensio,' p. 24, etc. 'Handbuch zur Morgenländischen Münzkunde,' Stickel Leipzig (1845), p. 50.]

exhibition of Kufic legends, pure and simple. The earliest published piece of this class is also to be found in Professor Fræhn's comprehensive works. The exergue on the obverse was read by that accomplished scholar as

بسمالله محمد رسول الله الناقان الاعظم جمال امير المومنين

To this I am able to add from coins in the possession of Col. Abbott (1), and Capt. Hay (3), the novel, though imperfectly deciphered, legends—

OBVERSE:-

بسم الله محمد رسول الله حمدله مماامريه الامير علي سلمن اله إسلىم لله . . . The concluding words on other specimens seem to read

and in one instance . . . . . . . . . . . .

. شلے On the reverse the pedestal of the altar is formed of the word

CLASS E: Variety.

TALHAH BIN TAHIR, A.H. 209 to 213.

Copper: size, 51; weight, 30 (and 31) grains. A.H. 209.

Two specimens, British Museum (Cunningham collection).

OBVERSE :-

Kills الا الله وحدد الشريك له : Contro

بسم الله ضرب هذا الفلس معمر صنة تسع و ماتين : Margin

REVERSE:—Central device, a barbarized Sassanian head, to the right, with the usual flowing backhair, and traces of the conventional wings above the cap; the border of the robe is bossed or beaded.

In front of the profile is the name

محمد رسول الله مماامريه الامير طلحة على يدي عبدالله : Margin

I have two difficulties in regard to the above transcript from the original Kufic. The one in respect to the name of the place of mintage, which is visible on only one of the two specimens quoted, and is there somewhat confused in the original definition of the several letters, and otherwise obsoured by oxydation. The third and fourth upright lines are opened out, or slanted away from one another, towards the top, which usually indicates

<sup>&</sup>lt;sup>1</sup> ['Norm Symbols ad rem Numeriam Muhammedanorum Petrop,' 1819, p. 45, pl. ii., fig. 14.]

the letter ¿; though this sloping off may, perhaps, be a mere fortuitous imperfection of the die-engraving, the final letter is best represented by a modern, though it may, if needful, be converted into an J.

The second point is of less consequence, and extends only to the almost invisible outline of the word I have supplied by under the requisitions of sense rather than on the absolute authority of the single coin which retains in any degree of distinctness that portion of its mint impress.

## BRAHMANABAD COINS.

I am anxious to refer, even though momentarily, and in a necessarily imperfect manner, both from the condition of the materials and the want of preparation on my own part, to an interesting series of Indian coins that have only lately been brought to light during the excavation of an inhumed city in the province of Sindh, which Mr. Bellasis, its enterprising explorer, designates, perhaps somewhat prematurely, by the title of the ancient Bráhmanábád.<sup>1</sup>

However, be the site what it may, the laying open of this ruined town has made us acquainted with a class of essentially local money, of which the circle of our Oriental numismatists had previously no cognizance. Unfortunately, for the due and full explication of their historical position, the pieces obtained from this locality are nearly, without exception, of copper; and, in common with their more rare associates of silver, have suffered to an unusual extent during their prolonged entombment.

The general character of the coins, numbering some thousands, and in mere bulk sufficient to fill a 28 lb. shot-bag, is decidedly exclusive, involving Kufic legends with occasional provincial devices, and pertaining, as I suppose, to the Arab

<sup>&</sup>lt;sup>1</sup> [ Its exact position is stated to be 47 miles N.E. of Haidarábád. An account of the city of Bráhmanábád was first published by Mr. A. F. Bellssis in Hombay in 1856. A paper by Col. Sykes, on the same subject, appeared in the London Illustrated News of Feb. 21, 1857; and Mr. Bellssis' plans and sections in the number for the 28th of the same month.]

potentates of Mansúrah, who ruled over the lands of the lower Indus after the decay of the central power of Mohammedanism at Baghdád. The money of Mansúr bin Jamhúr (احمبور الكلي), the last Governor on the part of the Umaiyid Khalífs (about 750 A.D.), heads the list. I do not advert to the earlier coinages of central Asia, which have been transported, in the ordinary course, to the site of their late discovery; but commence the series with the coins which bear on their surfaces the earliest extant mention of the celebrated capital Mansúrah, the Arab reproduction of the still more famed Bráhmanábád of classic renown.

[See 'Baladari,' Reinaud's 'Fragments, 'Arabes et Persans relatifs a l'Inde,'

 I should be disposed to conjecture a considerable interval to have elapsed between the issue of this currency and that bearing devices somewhat in common, which displays the name of Abdulrahman (No 3 infrá), but I am not now in a condition to enter into any satisfactory speculations as to the precise identity of this monarch, or the dates of any of his successors, whose names can be but faintly traced on the worn and corroded surfaces of the coin, submerged with the town of which it necessarily constituted the bulk of the then existing currency. I await, in short, the further supplies of better specimens, promised me by the energetic antiquarians on the spot, and, individually, more leisure to look up the rather obscure history of the divisional government which these coins represent.

I have one remark to add in reference to the peculiarly local character of these numismatic remains, and the restricted antiquity of the town, as tested by the produce of the habitations hitherto penetrated, in the fact of the very limited number of Hindú coins found among these multitudes of medieval pieces, and that even these seem to be casual contributions from other provinces, of no very marked uniformity or striking age.

# MANSUR.

No. 1, Copper: weight, 33 grains; size 6.

OBVERSE :--

لااله الا الله وحده الشريك له Area:

Margin : Illegible.

REVERSE :-

Area: Central symbol nearly effaced, above which appears the name رسول الله, and below the words مرسول الله.

بسم الله ضرب [هذا القل]س بالمنصورة مماامربه - Margin: منصو (sto)

As. Sec., vel. i., p. 23 et seq. Burnes' 'Bokhāra,' vel. iii., p. 31. 'Jour. Roy. As. Sec.,' vel. i., p. 199. Postan's Observations on Sindh,' p. 143. Pottinger's 'Beloochistan and Sinde' (London, 1816), p. 381. Wood's 'Oxus' (London, 1841), p. 20. Mohammed Ma'sdm's 'History of Sind,' A.D. 710 to 1690. 'Bombay Government Selections,' new series, No. xiii. (1856).]

Messrs. Frere, Bellasis, and Gibbs, of the Bombay Civil Service.]

No. 2:

Obverse: - Device altogether obliterated.

REVERSE :-

Area: Central symbol in the shape of an elongated eightpointed star: above, حمد; below, ارسول الله.

يسم [الله] ضرب ه بالمنصورة مما امرية منصو (Margin: (vic.)

## ABDULRAHMAN.

No. 3, Copper: size, 5; weight, 44 grains.

Obverse :—Central device, a species of quatrefoil, or star with four points, on the sides of which are disposed, in the form of a square, the words تعمد رسول الله عبدالرحمي. The outer margin of the piece is ornamented with a line of dots enclosed within two plain circles, with four small dotted semicircles to fill in the space left vacant by the angular central legend.

REVERSE:—A scalloped square, surrounded by dots, within which, arranged in three lines, are the words بالله عبدالرحمن لسلعار; the concluding word I am unable satisfactorily to decipher, it is possibly

the name of Abdulrahman's tribe.

# MUHAMMED.

No. 4: A unique coin of apparently similar type—though with an obverse absolutely blank—replaces the name of Abdulrahman on the reverse by that of Muhammed. The concluding term is identical with the combination above noted.

# ABDALLAH.

No. 5: Copper.

OBVERSE: - Device as in No. 3 (Abdulrahman).

محمد [رسول الله] عبدالله : Legend

REVERSE :- Blank.

No. 6. Copper: size, 31; weight, 18 grains.

Obverse: Central device as in No. 3, around which in a circular scroll may be partially read the formula الآله الا الله وحدد الشريك له.

Revense:—Centre device composed of the name of عبدالله Abdallah; the two portions عبد and الله being crossed at right angles, in somewhat of accord with the scheme of the obverse device.

The marginal legend is arranged in the form of a square and con-

sists of the words إلا مير sists of the words.

No. 7. Silver: size, 2; weight, 8.4 grains. Devices are discontinued and replaced by simple Kufic legends, as follows:

لااله الا الله وحدد الشريك له --: Овчекке --- الله المير عبدالله --- Reverse

No. 8. Copper, of similar legends. Other specimens vary in the division of the words, and omit the title of Al Amir.

#### OMAR.

No. 9. Silver: size, 1; weight, 9 grains. Five specimens. Obverse:—No figured device. Legends arranged in five lines.

بالله محمد رسول الله عمر

Marginal lines, plain or dotted, complete the piece.

REVERSE: - Kufic legends alone in three lines.

No. 10. Copper: size, 4; weight, 35 grains. Common.

ينو Legends as in the silver coins with the exception that the بنو is placed, for economy of space, in the opening between the ناليله. The dic execution of these pieces is generally very inferior.

No. 11. Copper: size, 31; weight, 21 grains. Unique.

OBVERSE :- Blank.

REVERSE:-

بنو — عمروية النصر ... Contro: —س بالمنصورة سنة اربع — Margin: ۴

# OMAR (?)

No. 12. Copper: size, 41; weight, 36 grains. Mr. Frere, unique.

<sup>1</sup> [Among the silver coins exhumed from the so-called Brahmanabad some are so minute, as to weigh only 1.2 gr.]

<sup>2</sup> [I am inclined to identify this ruler with the Omar bin Abdallah, above indicated as the reigning sovereign of Mansúrah, at the period of the geographer Masddi's visit to the valley of the Indua, and of whom he speaks further in the following terms:— 'There is some relationship between the royal family of el-Mansdrah and the family of esh-Shawarib, the Radi, for the kings of el-Mansdrah are of the family of Habbar ben el-Aswad, and have the name of Beni 'Amr ben 'Abd el-Ayiz el-Karshi, who is to be distinguished from 'Amr ben 'Abd el-Ayiz ben Marwan, the Omaïyide (Khalif)'.—Sprenger's 'Meadows of Gold,' p. 386. See also Gildemeister, quoting 'Ibn Hankâl,' p. 166, and Elliot, citing the same author ('Historians of India'), p. 63.]

OBVERSE:—Central device, four lines crossing each other at a common centre, so as to form a species of state of eight points; four of these are, however, rounded off by dots.

LEGEND, arranged as a square:

with single dots at the corner angles, and two small circles filling in the vacant spaces outside of each word.

Margin: Two plain lines, with an outer circle of dots.

REVERSE: Central legend in three lines within a triple circle composed of dots, circlets, and an inner plain line. I transcribe the legend, with due reservation, as:

بنه بالله عمرويه النصر



# XXI.—ADDITIONS TO BACTRIAN NUMISMATICS, AND DISCOVERY OF THE BACTRIAN ALPHABET.

(JULY, 1838.)

It is not an easy matter to gratify my numismatological readers with a plate of entirely new Bactrian coins so frequently as they would wish; for, independently of the time and labour requisite for engraving them, the subject, as to new names at least, may be looked upon now as nearly exhausted. Opportunities, however, still occur of verifying doubtful readings, of supplying names where they were erased or wanting in former specimens, and of presenting slight varieties in costume, attitude, and other particulars, which tend to complete the pictorial history of the Bactrian coinage.

For these several objects I enjoyed a most favorable opportunity during the visit of General Ventura to Calcutta last winter; his second collection, though possessing few types or names absolutely new, boasted of many very well preserved specimens of the small silver coinage of Menander, Apollodotus, Lysias, Antimachus, Philoxenes, etc. The General most liberally conceded to me, from his abundant store, several that were wanting to my own cabinet, both of silver and

Plate xlii. contains etchings of both of these coins to which I would thus draw prominent attention. Dr. Lord thus describes the place and circumstances of their discovery:—

and important that has yet fallen into our hands.

that stimulates me at once to give forth all that have accumulated in my Bactrian drawer since I last wrote on the subject. I must give Dr. Lord's coins the first place, because one of them is, perhaps, the most curious

'I do myself the pleasure to forward two coins, which I have been so fortunate as to find during my late visit to Turkistán. The doubleheaded coin I found at Tash Korghán, the other at Kundúz.'

Fig. 2 I need not particularly describe, as, though new to us, it has been published from other specimens in France. The reverse has a naked figure of Apollo in lieu of the Dioscuri.

Fig. 1 is an unique medallion (that is, a tetradrachma) of Eucratides.
Obverse:—A fine youthful head and bust of the king wearing a plain steel helmet, with the bands of the diadem protruding behind.



OHF

West &C' Buge"





On the area above and below—BANIAETH METAN ETERPATIONN in the nominative case.

Reverse:—Busts of a man and a woman looking to the right: hair simple and without diadem; legend above MAIOKAEOYZ, below KAI AAOAIKHX.

Supplying the word was, we have here the parentage of Eucratides developed in a most unexpected way: 'The great king Eucratides, son of Heliocles and Laodice.' The former is a well-known Greek name, but it is evident from the absence of title and diadem that he was a private person, and yet that his son, having found his way to the throne, was not ashamed of his unregal origin.'

I have long been pledged to my readers to give them a new alphabet for these Bactrian legends, and I think the time has now arrived when I may venture to do so; or at least to make known the modifications which have been elicited by the abundance of fresh names and finely preserved specimens which have passed under my eye since that epoch. It must be remembered that the only incontestible authority for the determination of a vowel or consonant is its constant employment as the equivalent of the same Greek letter in the proper names of the Bactrian kings. Beyond this we have only analogies and resemblances to other alphabets to help us, and the conjectural assumption of such values for the letters that occur in the titles and epithets of royalty as

<sup>&</sup>lt;sup>1</sup> [I have omitted some of Prinsep's original speculations in regard to the Indian origin of Eucratides' mother, that he was led into by the faulty drawing of the coin supplied to him by Mr. Masson, and which the scaling wax impression of the original in his possession did not enable him to rectify until new information reached him at the moment of the publication of the current number of the 'Jour. As. Sec. Beng.,' when the error was unbesitatingly corrected by a fly-leaf note.]

may furnish an admissible translate of the Greek in each and every case.

It will be my object presently to show that this can be done, as far as the coins are concerned, by means of the Sanskrit or rather the Pálí language; but in the first place it will be more convenient to bring forward my revised scheme of the alphabet as far as it is yet matured. Unfortunately the exceeding looseness of orthography and caligraphy which could not but prevail when one foreign language (for such it was to the Greek die-cutters) was attempted to be rendered by the ear in another character, equally foreign to the language and to the scribes, with abundance of examples before me, renders it almost impossible to select the true model of some letters for the type-founder!

I begin with the initial vowels:

- η, a. This symbol continues to occupy the place of the vowel a in all the new names lately added to our list, beginning with the Greek A, of which we have now no less than seven examples. The other short initials appear to be formed by modifications of the alif as in the Arabic, thus:
  - Y, Y e, is constantly employed for the E of Greek names.
- n, is found following it in the word Eucratides, as though put for the Greek τ, but other evidence is wanting.
- f [with the head-line reversed], i? though seldom met with on the coins, is common in the inscriptions, and by analogy may be set down as i.
- .9 d [the Numismatic an, plate xi.], is employed in words beginning with AN.

The medials seem to be formed in all cases by a peculiar system of

<sup>&</sup>lt;sup>1</sup> [It will be seen that under the combined poverty and imperfection of the only Bactrian type available in Europe, I have had much difficulty in doing justice to Pinsep's latest revision of this alphabet. As my author's own forms were often faulty and defective, it was of course useless to reproduce the deficient lettern, or to do more than indicate as nearly as possible, though necessarily in somewhat of a patchwork manner, the essential position in which he left the study of Arian palseography.]

discritical marks; of these the i is the best determined, being found applied to almost all the consonants in the form of a small stroke crossing the letter. The i is uncertain; it may be a prolongation below in the r,—a foot stroke or mitra. The s, I judge from the Manikyála inscription, to be a detached stroke behind and above; in a few cases only joined. The u may be the loop so often seen at the foot of the written letters. I feel it to be a little premature thus to assign sounds without any positive authority; but it was from a similar assumption of the value of its vowel marks that I was led to the discovery of the Indian pillar alphabet.

With regard to the consonants, I ought, perhaps, to follow the order of the Hebrew alphabet; but, as the language to be expressed is allied to the Sanskrit, it may be more convenient to analyze them in the order of the latter.

 $\gamma_i$ , ka. This letter on further scrutiny I find invariably to represent  $\kappa$ ; and its place is never taken on the coins by  $\gamma_i$  as I formerly supposed. It occurs also with the vowel affix i, as ki; also, but seldom, with the u, as ku; and with the subjoined r, as kra. In the compounds, kla, kli, a form is adopted more like the Hebrew q p (quere  $\neq$ ). There are two or three examples in support of it.

S, kh, is limited as such to the name of Antimachou; but I find it also representing the g in Abagasou. In the written tablets we have various forms seemingly identical with it; yet one of these, with the vowel i, is used in some places for dbi (intended for the inflected !?). There is no small affinity between them and 1, Q, the kh of the old Sanskrit written invertedly.

[1st, see second form of Numismatic **w**; 2nd, the same inflected with r; 3rd, the compound represented by the eleventh letter in the inscription from the brass cylinder, pl. vi., vol. i.] I place these forms here because they occur several times in the tablets, and they bear some resemblance to the g of the Pehlvi.

Of the Sanskrit palatials neither the Greek nor the Chaldaic alphabets contain any proper examples—the ch and j are modified to z and ts—which letters we must expect to find substituted for the Sanskrit class

[No. 1, a v reversed; 2, a d reverced. See Numismatic chh, pl. xv.] The first of these forms is found at the close of a series of words terminating each in the same vowel inflection, ', e; which makes me suppose it to be the Sanskrit conjunction cha, uniting a string of epithets in the locative case. As yet I have no stronger argument for its adoption.

u, or u, ja (tsa?). The form of the Chaldaic to u, agrees well with

the first; indeed, in many coins of Azes, the Bactrian form is identical with the Chaldaic. I find that in every case this letter may be best represented by the Sanskrit n = j, and, indeed, in the early coins of Apollodotus, etc., its duplicated form [the fourth letter in Maharája, pl. xii.] seems to be copied from the ancient Sanskrit n = j, reversed in conformity with the direction of the writing. The only inflection I have met with of this letter is jn.

I can make no discrimination between cerebrals and dentals; because the Greek names translated have of course no such distinctions, but from the variety of symbols to which the force of d and t must be ascribed, I incline to think the alphabet is provided with a full complement, though it is in the first place indeed almost a matter of option which letter to call d, t, r, or n, they are all so much alike—thus for t we have  $\gamma$ ,  $\gamma$ , and  $\gamma$ , and with the vowel i,  $\gamma$ ,  $\mathcal{F}$ , etc.

I do not attribute this ambiguity to the letters themselves so much as to the carelessness and ignorance of the writers, who might pronounce the foreign name Apollodotus, indifferently Apalátada, Apaladata, and even Apalanata. Being obliged to make a choice, I assume as in my former paper—

- 7, for ta, whence the various inflections.
- 3. tta, tha, commonly used for dh, and its inflections.
- > 1, &, for da, nda.
- {, na. I do not perceive any indications of the other nasals, and indeed, they seem to be omitted when joined to another consonant: but I find something corresponding to the anuswara attached below the vowel a, and before consonants it seems represented by m.
- pa. The first of the labials is one of the best established letters.
  It has been discovered also inflected, and united with either h or s in
   phs or sps: also with li in pli, and in other combinations which will be noticed as they are brought forward.
- Ψ, ψ, pha or fa? I have no stronger reasons than before for continuing this value to ψ:—it seems in some few cases to usurp the place of v; it is inflected also.

Ba? is still undetermined; in the doubtful name above quoted, ABAFAZOY, it seems to be replaced by \(\mathbf{\gamma}\) or \(\mathbf{\gamma}\)—the aspirate is also unknown.

U ma Y. This letter admits of no doubt whatever; but in the

Menander form,  $\psi$ , I now recognize the inflection ms, corresponding with the Greek name more closely. The second or what may be called the printed form of m has a considerable affinity in form with the old Sanskrit B or  $\boxtimes$ , whence it may be almost as readily derived as the Burmese form of the Pálí m.

- A ya. This letter is unchanged: it invariably replaces s and y, and sometimes j where the latter would be expressed by the Sanskrit  $\mathbf{z}$  or  $\mathbf{J}$ . It may perchance have been modified from the letter, for in some examples it is turned up on the sides thus,  $\mathbf{w}$ ; the inflected form yi is of common occurrence: yi less common.
- σ, η, β, ra. It is necessary to preserve these three representatives
  of r; I incline to think that the prolongation below may be the mátra
  or the long á inflection, rd; for the first form is used in Ermaiou
  where there is no intervening vowel. It is only distinguishable from
  d by the foot-mark of the latter, which seems to be often omitted
  notwithstanding.
- ¬, la. Further acquaintance has taught me that this is the only representative of Λ in Greek names: the instances wherein the l before appeared to be replaced by l have been disproved by duplicate coins. The inflected form ¬, li, has numerous examples among our new acquisitions.

q va, and vi, rest on strong but not indisputable authority, as will be seen below.

- o, \(\cdot\), ha, has been removed from its former position as \(l\) on ample grounds; and the value now assigned has, I think, equally strong support—though as far as Greek names are concerned it rests solely on the initial syllable of Heliocles, he. There is, again, a similarity worthy of remark between \(\omega\) inverted, and the old Sanskrit ha, \(\theta\), \(\omega\).
- p, sa. To this letter I gave the sound of o on the former occasion, because I found it the general termination of nominatives masculine in Zend and Pálí—replacing the Sanskrit visarga, ah or as. Since then I have found the same letter (affected with the vowel i) in two Greek names as the equivalent of si, and I am too happy on other considerations to adopt this as its constant value; whether the dental s of the Sanskrit will best represent it remains to be seen, but the nearest approximation in form occurs in the Hebrew □ s: there are certainly two other characters [one like a k, or Φ], and □, having the force of s or sh. The former I should presume to be the Sanskrit sha Ψ, from its likeness to the old form Φ. The latter, □, may be a variation of A, for which it is sometimes used, but rather by change of the Greek z to z, than as being the same letter, for elsewhere it takes the place of the Greek z as in AZIAIZOT, while A occurs for z in the same word. In

form it seems to be the Chaldaic n, or th soft. Several inflections of these letters have been observed.

It will be naturally expected that the alterations I have been compelled to adopt in the value of many of the above letters must produce considerable modifications in my former interpretation of the Bactrian legends. Indeed, when I look back at my attempt of 1835, I must confess that it was very unsatisfactory even to myself. I was misled by the Nakshi-rustam trilingual inscription, wherein the title of king of kings has been uniformly read as malakin malaki, though I balanced between this and the term mahario, having found pao on the Indo-Scythic series. But, once perceiving that the final letter might be rendered as sa, which is the regular Pálí termination of the genitive case, I threw off the fetters of an interpretation through the Semitic languages, and at once found an easy solution of all the names and the epithets through the pliant, the wonder-working Pálí, which seems to have held an universal sway during the prevalence of the Buddhist faith in India.

The best test of the superiority of a Pálí interpretation will be found in its application to the several royal titles of the Greek kings, which were previously quite unintelligible. The first of these is simply BAXIAEDZ, which is constantly rendered by FUTO mahardjasa, the Pálí form of HEICIGE. It is true that there is some doubt whether the long vowel a is here applied to the b and r; but we have long since been accustomed to the omission of this and even other vowels in the Satrap coins of Suráshtra. The word is often written FUTO. Whence I have supposed the dot or dash below to stand for a.

The next title is BAZIAEGE BAZIAEGE, which we find replaced by mahárájasa rájarájasa, a perfectly sound and proper expression according to the idiom of the Sanskrit. But in one class of coins, that of Azes, there are some very well preserved specimens, in which the second part of the title is FLYTHY, which is evidently rájátirájasa (or adhi, for the letter has a turn at foot, and may be meant for dhi), the regular **CIATIACIAE** of the paramount sovereigns of India. The syllable dhi is often written  $\uparrow$  ti,  $\uparrow$  ri, or even ti or gi (?) but the vowel i shews what is meant.

To the title of kings is generally added on the Greek side the epithet METAAOT, for which we have an addition in Bactrian of the word promatasa, one of the forms of the Pálí genitive of mahán (or mahat) great, which makes only mahatah HET: in Sanskrit. The full title then is thus found to be mahárájasa rájadhirájasa mahatasa, which is far preferable to the clumsy and unsatisfactory malakao kakkao malako of my former paper, now rectified by the rejection of as ka.

The next title in the list is XOTHPOX, for which we have rather a dubious word of four letters, either dadatasa or nandatasa, the former equivalent to <a href="mailto:exact: the bestower of dána">exact: the bestower of dána</a>, a word comprehending protection as well as charity;—the latter to <a href="mailto:exact: tof the giver of pleasure.">exact: tof the giver of pleasure.</a>

The epithet of next frequency is anikhtor, the unsenquered, which is translated by apavihatasa (Sans.  $\mathbf{aufagaa}$ ), the unbeaten or invincible. It is this word principally which leads me to make  $\mathbf{P}$  cs, and to distinguish it from  $\mathbf{h}$  ti and  $\mathbf{H}$  li, with the latter of which I before confounded it.

Next in order comes the somewhat similar expression NIKH+OPOT; but the correct definition of this epithet is preserved in jayadharasa, the bearer of victory. In one instance the dh is written separately FIRAN; in others (like the dh of adhi) it is jayadarasa, but there can be little doubt of the sense; and this word is a strong confirmation of the value of the letter y, or y ja.

There is a second epithet of nearly the same signification which is common enough on the Sciencidan coins, but comparatively rare on those of Bactria, Nikatopoz. This epithet was found on the unique coin of Amyntas, of which Col. Stacy was unfortunately robbed, and on one or two others. In the Bactrian translation the same word is used in every case as for Nikheopot, namely, jayadharasa, the possessor of victory, or the victorious.

There remains but one epithet to be accounted for (for \*MAGNATOPOX of the Apollodotus unique coin does not seem to be translated):—it occurs on the coins of Heliocles, Spalurmes, and Archelies; I mean AIKAIOT 'the just'—a rare epithet in any but the Arsacidan line of kings. This is everywhere rendered by dhamikasa (Sans. **Ufface**) the exact expression required, and one constantly applied to Indian kings.

I am wrong in saying that the epithets are here exhausted, for on the unique coin of Agathocleia in Dr. Swiney's possession there is a singular epithet ecorponor, 'heavenly dispositioned,' yet unaccounted for: of these, the two or three first letters are lost, and the last two P7 tass may terminate devamatass or some such simple translation. It is a curious fact that the name of the queen does not appear to be feminine in the Bactrian legend; and the title mahárájass is also in the masculine.

There is another expression on a coin of Spalurmes, viz., 'king's brother,' MHAATMON AIKAIOT AMEMON TOT BANIAGON, the Bactrian translation of which at first seemed inexplicable; but, by means of

another coin, I think I have solved the enigma, as will be presently explained.

Having thus satisfactorily disposed of the regal titles, we may place once more under review the whole of the Greek names with their Bactrian transcripts collated from a multitude of specimens.

GREEK NAME.	BACTRIAN IN ROMAN CHARACTER.
AZOY	, Agasa (pronounced Ajasa)
AZIAI≅OY	Ayilishasa.
ΑΠΟΛΛΟΔΟΤΟΥ	. Apaladatasa.
ΑΓΑΘΟΚΛΕΩΣ(found only in	the old Sanskrit) HAOJE
ΑΓΑΘΟΚΛΕΙΑΣ	Fakasaqlitasa (av yasa).
ANTIMAXOT	Auti-makhasa.
ΑΝΤΙΑΛΚΙΔΟΥ	Anti-alikidasa.
AMYNTOY	Amitora.
APXEAIOY	(unique, Bactrian name crased)
ABAFAZOY	. Abakhaskasa.
EYKPATIAOY	. Eulyatidase.
EPMAIOY	Ermoyasa.
HAIOKAEGE	Helayaqlayasa.
ΔΙΟΜΗΔΟΥ	Tayemidasa,
ATTIOT	Lisiasa (or Lisikasa).
MAYOY	Ma-asa (or mayresa).
MENANΔPOY	Medanasa (or Menanasa).
ФІЛОЗЕНОТ	Pilasinasa (or Plijasinasa,

Then follow a class of coins in which the names are either quite different on either side, or the Greek is intended for a transcript or translation of the native appellation.

Then the group of the Ferres, or Phraates dynasty, if we may so call it, of which some new specimens will be introduced presently—

```
TNAO4EPPOT Faraketasa nandatasa.

FONAO4APOT Faraketasa gandadkarasa.

HPONA24EPPOT Fkorateklisanadkarasa?
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but it may be doubted whether all these are not in reality the same name, Farabetasa, coupled with the title corresponding to ENTHPOE, written in a loose manner.

On the reverse of the coins of the second Hermœus (or perhaps the











third), having a Hercules for reverse, commences another series of native names, forming what we have designated the Kadphises or Kadaphes group. After the change from epmaior on the obverse, to kadeleot, we have still precisely the same reverse as before, and it is preserved through a numerous series;—the title of mahárája is not to be found, nor is it easy to see where to commence either the Greek reading KOZUVAU KADELUV XUPANO, or the Bactrian, which may be transcribed dhama..rata Kujulakasa sabashakha (?) Kadaphasa:—in this reading, if we can make out nothing else, there are at the least two names, Kosoula (also written Kozulo and Kozola), and Kadphises (also written Kadaphse and Kadphises), accounted for. The distinctions on the small coin of KOPANOT ZASOT KADEC I am unable as yet to make out for want of further samples.

Connected with the same family we then come to the long inscription on the Mokadphiese coins, which may be read by comparison of a great many examples:—

Mahdrajasa rajadhirajasa sabatracha ihacha mahiharasa dhi mahadphisasa nandata.

'Of the great sovereign, the king of kings, both here and everywhere seizing the earth, etc., Mokadphises, the saviour?'

I do not insist upon any of these epithets, sabatra mahidharasa, for in fact they vary in every specimen. The dhi also looks in many coins more like dha, quasi dhama Kadphisasa. On some the reading is rather sabalasa saviratasa mahichhitasa महीचित: sovereign?). On some gold coins, again, the name more resembles vavahima Kadphisasa, agreeing with the Greek Oohmo Kaasiche.

It remains only to apply my theory of the Bactrian alphabet to the inscriptions on the cylinders and stone slabs extracted from the topes at Manikyála, etc., but this is a task of much more serious difficulty, and one not to be done off-hand, as all the rest has been! I must, therefore, postpone the attempt until I am better prepared with my lesson; and, meantime, I will proceed to describe briefly the contents of

#### PLATE XLIII.

Fig. 1 is a small silver Euthydemus in Capt. Burnes' collection: it resembles exactly the medallions already published of the same prince. Weight, 62 grs. See pl. xxv., vol. iv., fig. 1, 'Jour. As. Sec. Beng.'

Fig. 2 is a hemidrachma of Demetrius also belonging to Captain Burnes. See

one figured from General Ventura's collection, pl. xiii., fig. 2.

Fig. 3, a silver coin of Antialcidas, presented to me by General Ventura. Execution very good. Weight 10½ grains.

OBVERSE: —BAXIAERX NIKHOOPOY ANTIAAKIAOY. Head of the king with a flat helmet shaped like a cocked hat:—chlamys on the shoulders, and diadem seen under the hat.

REVERSE:-Bactrian legend, Mahdrajasa jayadharasa Antialikidasa. Jupiter

stated holding a small figure of victory:—at his feet to the right, the forepart of a small elephant with trunk elevated. Monogram on the left composed of P and ≼¹.

Fig. 4, a similar druchma of Lysias, belonging to General Ventura: unique.

OBVERSE: -- BARIAEGE ANIKHTOY ATRIOT. Head of the king, with the Demetrius helmet, shaped like an elephant's head.

REVERSE:—Bactrian legend, Maharajass apsoihatass Lisiass. (The copper square pieces have Lisikass). Hercules naked standing, with club and lionskin, as on the coins of Demetrius.

Figs. 5, 6. Two varieties of Menander, not yet depicted in the journal, given to me by General Ventura, who has many of a similar nature. In one the prince wears a handsome belieft, in the other he has the simple diadem. The reverse of both agrees with the one engraved in pl. xiv., fig. 1, except that Minerva looks in the contrary direction.

#### HELIOCLES, KING OF BACTRIA.

Fig. 7. The first coin of Heliceles which I have yet seen in India. It belongs to General Ventura. A square copper or bronze piece in excellent preservation.

OBVERSE: -- BAZIAEGZ AIKAIOT HAIOKAEOTZ. Diadem'd head of the 'just king, Heliocles,' somewhat similar in features to Eucratides.

REVERSE . Bactrian legend, Makdrajass dhamikass Heliyaklayass: 2 an elephant equipped with howdah and trappings walking to the right; monogram E.

Fig. 8. A less perfect coin of the same king presented by the General to myself.

In licu of the head of Heliocles, the obverse bears an elephant, naked, walking to
the left, Greek legend as above. The reverse is irrecoverably lost.

It is, perhaps, unnecessary here to retract my former doubts of the existence of a Heliceles in the Bactrian dynasty, since they have long been removed by the account of the silver medals in France. We have as yet seen none but these two copper specimens in India, but the probability is that both silver and copper might be found in Bactria proper, to the north of the Hindu Kush or Imaus.

An opinion has been started by Mionnet, in opposition to many European numismatists, that Heliocles was no other than Eucratides the second, the parricide. The surname of AIKAIOZ, so unsuitable to such a character, he supposes given through fear or adulation, which I agree with M. R. Rochette in thinking too great an anomaly to be allowable: but without seeking to account for this staggering circumstance, we can now help M. Mionnet to a very powerful argument in his favour from the unique coin of Dr. Lord described in a former part of this paper, which proves that Eucratides' father was a Heliocles; and we know that it was common to call an eldest son by his grand-

<sup>&</sup>lt;sup>1</sup> N.B. The etching of this coin is a total failure: the plate was laid by for several months and the acid would then barely touch it. In retracing it, the native engraver has quite wandered from my original, and I perceive it too late for alteration on more than half the edition of the plate.

<sup>\*</sup> The ante-penultimate letter might be better read Sra, or Sri: which would give a Sanskrit version of the name, — helyesriyasya, 'having a sun-like prosperity.'

father's name, as is, indeed, universally the custom to the present day both in Eastern and Western countries.

Fig. 9. I have introduced this duplicate of the single mutilated coin depicted in fig. 8, pl. xv., among the then doubtful group, because [General Ventura's present specimen exhibits the name in the Bactrian, "PA") sysse, and thus proves it to belong to the abundant series of AZES' coins.

Fig. 10 is a square copper coin of Lysias kindly added to my cabinet by General Ventura.

It is in better preservation than any before published.

OBVERSE: -BAZIAEGE ANIKHTOT ATZIOT. Head of Lysias, with diadem. Mionnet says of a similar coin, 'représenté en Hercule, la massue sur l'epaule gauche' --but I do not perceive these characteristics very distinctly.

REVERSE: - Bactrian legend, Mahdrajasa apovihatasa lisikasa, 'of the unconquered king Lisika.'

I perceive that both Mionnet and M. Raoul Rochette give to Lysias the square coins of Spalyries or Spalurmes; though there is no resemblance whatever between them. M. Raoul Rochette writes in the 'Journal des Savants,' Mars, 1836, p. 136:—

'Cette autre médaille de Lysias diffère sons tous les rapports de celles que nous possédions déjà du même prince: elle est restée inconnuc,¹ à tous les savants et voyageurs Anglais qui, depuis plusieurs années se sont appliqués avec un zèle si louable à recueillir ces précieux monuments de la civilization Grocque enfouis dans le sol de l'Inde: et l'exemplaire que nous devons à M. le général Allard, et que je publie, est encore unique. La fabrique, qui ressemble à celle de la médaille du roi anonyme, que j'ai fait connaître,² accuse sensiblement une époque de décadence, d'accord avec la forme carrée du ç et de l' □ qui commencent à paraître sur la mounaie des Arsacides, à partir de Phrante III. à une époque qui doit s'éloigner bien peu de l' âge de notre Lysias. On pourrait voir un autre rapport entre cette mounaie Bactrienne et les médailles du même prince Arsacide, dans le titre de juste, ΔΙΚΑΙΟΤ, qui se lit habituellement sur les médailles de Phrante III. . . . . . . mais ce qui constitue ici la particularité la plus remarquable et la plus neuve, c'est la qualification d' Adelphe, ΑΔΕΛΦΟΤ, affectée par Lysias, &c."

When the mistake of attributing this coin to the wrong person is corrected, it is curious how perfectly the observations of the learned antiquarian of Paris confirm the conjecture to which I have been led by the deciphering of the Bactrian legend:—the coin is that of the 'son of a king Spalahara or Balahara;' in bearing the effigy of Hercules it agrees with the corrupted coins of Hermæus II. and others

<sup>&</sup>lt;sup>1</sup> The drawing of the very coin described by M. R. R. was published by myself in June, 1835, but I did not deem the name legible, nor has it proved so at Paris, by their making Lysiou out of Spalurmou. I stated my reason for not publishing earlier to be, that I might not forestal the 'As, Soc. of Paris' in describing General Ventura's splendid collection.

<sup>&</sup>lt;sup>2</sup> It is not obvious in what this great resemblance consists;—one coin is square, the other round:—one has a Greek legend only; the other a bilingual one—the equestrian figure is the obverse in one, the reverse in the other. The anonymous coin was first published in the 'Asiatic Researches' in 1831, and in the Journal for 1833 and 1834.

of the Pherres or Phrahetasa (Phraates?) type, which appear to belong to one family. M. R. R. agrees with our discoverer Masson in locating them in an Indo-Greek dynasty at Nysa, or near Jelálábád, where their coins are found in the greatest abundance.

I have introduced an engraving of a very perfect specimen of this coin given to me by Mr. Trevelyan, who got it from Mohan Lál, as fig. 3 of pl. xlii.

It may be remembered that the name of Vonones is not found on the Bactrian side of his coins, but a totally different word, PILTh Balaharasa as I read it, or perhaps Balaharasa (वजाहरस्य), the patron of champions, a term nearly equivalent to 'Satrap.' Now on all the coins of Spalyries (or Spalurmes) hitherto found, the initial letter has been unfortunately cut off; but the three next are lahara, the same as above, wanting only the final genitive inflection: the next letters may be read putasa, for (yata) 'of the son.' Putting the whole together we have (h Ba) láharaputasa dhamikasa Balafaramasa, 'of Balafarama (either for Balaparama, or वसवस, whose strength is his armour) the just, the son of Baláhara.' Therefore, as he was brother of the cotemporary of Vonones, 'the then king' must also have been a son of the same person: and we should expect to find another coin of a somewhat similar type struck by him. These conditions are satisfactorily combined in the rude square coin of Spalirises, depicted in pl. xv. and pl. xxviii., fig. 7. He has the same flowing mantle from the shoulders, the sceptre of royalty, and his native name appears to be Balirishasa: thus the father's native name is Balahara; the eldest son's Balirisha, and the second son's Balavarma, and the copper money of the whole triad is distinguished for its exceeding rudeness no less than its conformability of type! The silver money of Spalurmes and Spalirises has not yet been found, or we might probably find that it maintained the name of Vonones, the Parthian king, or his successor, on the obverse.

The style of these three names commencing with Bala,—and the title in particular of the first, Balahára,—call to mind the Balhára dynasty of north-western India, of which the epoch cannot be said to be yet well defined. One of the earliest foreign authorities, the historian Masoudi, who wrote in 947 a.d., says;—'The dynasty of Phoor, who was overcome by Alexander, (had) lasted 140 years: then came that of Dabschelim, which lasted 120 years: that of Yalith was next, and lasted 80 years, some say 130. The next dynasty was that of Couros: it lasted 120 years. Then the Indians divided and formed several kingdoms; there was a king in the country of Sind; one at Kansuj; another in Kashmir; and a fourth in the city of Mankir

(Minnagara?) called also the great Houza, and the prince who reigned there had the title of Balhára.' 1

120 + 80 + 120 = 320 years, estimated from Alexander's time, brings us to n.c. 3, or, allowing a few more years to Porus, say 10 or 20 a.d. Now, the reign of Vonones I. as king of Parthia is dated by Vaillant from a.d. 6 to a.d. 20, so that the accordance of time is here perfect, and we need seek no other explanation of the paramount Persian sovereign's name and effigy on one side, while the other modestly bore that of his tributary, because we have witnessed the same in the Satrap coins of Suráshtra. The native kings were apparently allowed to have the copper coin to themselves. The religion here, however, is polytheistic, the effigy that of Hercules or Baladeva.

Without insisting upon their being the same person, I cannot help mentioning that the name of Balarishi is found as one of four brothers by different mothers, who cut a conspicuous figure in Indian fable. Balarishi, Vikramarka, Bali, and Bhartrihari; the second of these is the celebrated Vikramáditya, whose reign falls 56 years before Christ, and he was the son of one Gandha-rups, or, as the fable has it, of a gandharva, in the mortal disguise of an ass. Wilford interprets the tale by making Vikramáditya the son of Bahram Gor of Persia by an Indian princess, and, to account for the anachronism of 400 years, is forced to imagine there were several kings of the same name,—which would be likely enough if he admitted (as seems certain from our coins) that Vikramáditya is a mere title. We shall presently allude again to this circumstance.

Fig. 11. From General Ventura's collection. A more perfect specimen of a hitherto illegible coin. It is now seen to belong to Mayes.

OBVERSE:—BAZIAEGE BAZIAEGN MEFAAOT MATOT. Front figure of the king sented on a chair or throne, a shawl (?) on his shoulders, and a club or knotted sceptre in his right hand like that given to Mokadphises.

Reverse:—Much worn and indistinct, a female holding some object like a searf with both hands, and having a flowing robe behind, like that of the Vonces group. Bactrian legend, rejadhérajasa makatasa maasa, and on the field we used numerically (?)

The discovery of this rare specimen, only the third known of the prince whose name it bears, will be highly gratifying to the numismatists of Paris. It will, in the first place, remove the doubt entertained by M. Raoul Rochette himself whether the un-Greek appellation Mayes might not be used for Mao, 'the moon,' as a divinity and not as a king; or whether, united to the title BAXIAETS, the compound may

<sup>1</sup> Wilford's Essay, 'Asiatic Researches,' ix., 181.

<sup>2</sup> I have just received another Mayes of different type from Capt. Burnes too late for insertion here.—J.P.

not be equivalent to the name of Apollodotus: 'ee n'est là, du reste, qu'une conjecture que je soumets avec beaucoup de défiance aux lumières de nos philologues indianistes, desquels seuls il est permis d'espérer la solution de ce curieux problême.'

The problem is now solved so far that we find him an earthly sovereign with similar titles to those of Azes,-and that he is not Apollodotus! The native name, composed of three letters, I should have formerly read MAO, but on the new, and I think correct, system now adopted, it must be read Má-asa or Mayusa, as near an approach to the Greek, or by the Greek to it, as the relative alphabets would allow. Of the name itself, I am inclined to identify it neither with Maig, the mother of Mercury (though the caduceus favors this idea, and the Indian Máyá is also the mother of Buddha), nor with Mao, as lunus,though Chandra is a common name enough,-but rather with Mayu (मायुराज:), the son of Kuvera, the god of riches (whose name also is frequently adopted by princes), and it may have been borne by a contemporary or successor of Apollodotas, who swayed the sceptre but a short period in some part of the Panjáb, if it is necessary to suppose them of the same age.

#### PHILOXENES.

Fig. 12. A square copper coin in most respects agreeing with the former one, also of General Ventura's collection, but having apparently a difference in the orthography of the Bactrian name. On comparing the drawing of the silver Philoxenes in the 'Journal des Savans,' with the rapid sketch I had taken of the same coin while in Calcutta, I perceive that I read the name and title wrong; which is my reason for inserting this better preserved coin :- the legend is clearly maharajasa apavihatasa plijasinasa (or Phildsinasa). On the silver coin the epithet is apavihasasa (quasi अपविद्वसत्य)-not to be laughed at! but I think the s must be a blunder.

M. Raoul Rochette judges from the military aspect of Philoxenes that he was a satrap placed with a regal title on the north frontier of the Bactrian kingdom when threatened by the Scythians; but the circumstance of none of his coins having been found by Masson in the upper field, while several have come to light in the Panjab, would tend to contradict this hypothesis, as much as the Ceres Carpophore, or abundance personified, and humped bull of his copper coin. This learned critic does not allow that the brahmany bull has any reference to India, because it is seen on the Seleucidan coins; but in the only specimen I have in my cabinet of a Seleucus with a bull reverse, the animal is altogether of the European breed.

<sup>&</sup>lt;sup>1</sup> See notes on the Allahabad inscription, Nov. 1837, p. 972—Palaka Ugrasena, decardahtraka Kucera. As the Parthian kings were styled decajamita, this country of the devas may have been in the north, as was indeed the fabulous country of Kuvera, the god-king.

#### COINS OF THE AXES GROUP.

A great deal remains to be done ere we shall be able to clear the history of this numerous and interesting series of coins. Every day new types and varieties spring up, generally of tinned copper or bronze.

Fig. 13 is a specimen in good relief lately sent down to me by General Allard; there was another in the collection sent home by General Court under care of M. Meifredy, of which I was favored with the sight of the drawing. On this the name on the Greek side was entire, and thence I am enabled to complete my description.

OBVERSE: -- BACIASLIC BACIASLIN METAAOV VNAO4SPPOV, -- raja in a brahmanical dress, upper part of the body naked,—on the head a turban (?) with flowing fillets. The small figure of victory holding a chaplet over him forms the peculiarity of the device, of which there are vet but three samples. The monogram, which was before so unintelligible to us, I now recognise as a combination of two letters of the old Sanskrit alphabet, & and 1, m and m.1

REVERSE:-Whether the figure in a brahmanical costume, holding a trident in the right hand and a palm branch in the left, is Neptune, Siva, the river Indus, or the king, I am not sufficiently initiated in the art to determine. No two reverses seem to be exactly alike, though formed of the same materials; the legend on the present in Bactrian is

Maharajasa rajarajasa nandatasa jayadharasa (1) Farhetasa.

I do not pretend to be satisfied with the last epithet, nor with the name, which, however, I collate with M. Court's. I have conceived it possible, on a former occasion, that it referred to Phrahates, the predecessor of Vonones, or another of the same name: but there are too many uncertain letters in it to build theories safely upon. At any rate, the same name of five letters, here seen below the figure of Siva, is found on all the rude coins ascribed formerly to Unad (now corrected to) Undo-pherres, with exception of the penultimate letter, which is there always formed like an f. Fara-etisa (9), to which nandatasa (soteros) is invariably added-on M. Court's coin this epithet may be preferably read PTLU great!

On the area are two Bactrian letters, which might be profanely taken for 'six shillings' by an uninitiated handler!

Fig. 14. A variety of the same group, in General Ventures recent collection. In this the horseman looks in the opposite direction, and the beginning of the name TNΔOΦερρο is visible. The monogram is composed of g and L,---g mys.

On the reverse, a well clad female holding still the trident (though it looks more like the cross) walks to the left-a Greek and a Bactrian monogram on either side, of complex form : legend as before, the name below.

Fig. 15. Another novelty from General Ventura's store, of which a duplicate has been sent to France by M. Court.

In all respects but the name the obverse corresponds with the foregoing. The

I may here note that fig. 14, pl. xxxii., is also a coin of Farketa, with the letters & as a central symbol.

name in the two coins yet brought to light of this species is quite distinctly PCNAODAPCY, which is either another member of the family or a corruption of the last.

The erect front-faced figure on the reverse is dressed in the Hindu dhoti, and extends his hands over a new symbol of gridiron fashion—in his left hand is the trident. This figure has been conventionally styled 'Siva,' when he appears with his bull on the Indo-Scythic coins. The native name is as before, Faraketasa, with the addition of netadharasa, 'the bearer of something not very intelligible, unless we make the first syllable AN jaya, 'victory.'

Referring to the observations in a preceding page about the brothers of Vikramáditya, I cannot forbear mentioning that in Gondophares we might almost recognize the father of Vikramáditya himself; for in the word Gondo-phares we have a signification not very remote from Gandha-rupa; \$\phiapos\$ being pallium, vestis exterior,—the compound may mean 'having a cloak made of the skin of the gandha, gonda, gor, or wild ass.' Whence may have originated the fable of the Parthian king doomed to assume the guise of an ass during the day.

These are speculations certainly much in the Wilford strain, but the curious coincidence in so many names is enough to lead even a matter of fact man aside from the justifiable deductions of sober reason.

Fig. 16, like the last, adds a new name to the Bactrian list. The coin, a thick copper piece in telerable preservation, was sent down to me by General Allard a short time ago; it is as yet, I believe, unique.

Obverse:—(Bartheas Bartheas perpaher) ABAFAEDV—'of the great king of kings, Abagases:' there may, perhaps, be another letter before the A. The king, known by the flowing fillets of his diadem, seems dressed in a petticoat, raja fashion—and he sits sideways on a richly caparisoned horse, looking to the right.

Monogram & as before, but with the Bactrian letter? beneath it.

Revenue:—The same royal personage (by the fillets) as if performing the functions of high priest. The dress is so precisely Indian, that I feel disappointed in not finding a regular Sanskrit name below; nor can I produce much of accordance between the Bactrian and Greek names—the letters are ababbafass. On the field are various insulated alphabetic symbols,—Bactrian and Greek, and, under the latter, one which looks like a modern Nagari s, w, but is more probably a Bactrian letter.

The last figure in the plate (from General Ventura's store) is a duplicate of the Azes coin published as fig. 22 of pl. xvii. Between the two one important fact is established, namely, that at this period of the Azes dynasty the use of the Greek was entirely lost, while the native character was written with greater correctness in the same or rather the inverse ratio. The Greek legend is a mere jumble of letters, but the Bactrian rends continuously—

Maharajasa mahatasa dhemikasa rajatirajasa Ayasa,
'Of the great king, the mighty, the just, the king of kings, Azes.'

The figure of Abundance with her cornucopia has a compound symbol on the left, which might be read Sri, her Indian name; and on the right the two letters 3, 5, khs and dhs, used numerically. (?)

The perfect Greek medals of Bactria proper, however beautiful as works of art, ought not to turn away our attention from these corrupted or 'barbarous' specimens which mark the decadence of Greek dominion and Greek skill. These are the most precious to the student of Indian history: through their native legend he may yet hope to throw light on the obscure age of Vikramáditya, and the Scythian successors of the Greeks on the north of India. Hitherto these classes of rude coins, though very numerous, have been much disregarded, and on that account I now invite attention to them, and promise to return to the task myself when I have fresh materials collected and arranged; my text being, 'those coins on which the native and Greek legends differ, or record different names.'

[ Following out the plan I have adopted on previous occasions, of combining the substance of Prinsep's discoveries with a general outline of the present state of our knowledge of the various subjects embraced under each heading, I subjoin—

1st. A revised plate (xi.), and a cursory letter-press review of the Bactrian alphabet, as elucidated by the latest available evidence, and illustrated by a valuable comparative table of the transitions of the early Semitic Alphabets, furnished me by M. le Duc de Luynes (pls. xi.\* xi.\*).

2nd. A brief introductory notice of the Arian nomenclature, and the parallel transcription and translation of the Greek names and titles occurring on the coins.

3rd. An abstract of the leading theories for the epochal and serial distribution of the list of monarchs adopted severally by the authors who have specially devoted themselves to the study so effectively inaugurated by Prinsep.

4th, and finally, I annex an outline but numerically comprehensive catalogue of all the Bactrian coins I have had an opportunity of examining, together with references to the various publications wherein the more important pieces may chance to have been figured and described at large; further, to improve, as far as possible, the general series, I have added such examples as I felt myself justified in citing from Major Cunningham's inedited plates; and, to complete the typical details, I have compiled from the coins themselves a table of mint monograms (pls. xi. xi. xi. y), which I trust will be found to afford a full and exact summary of these important records.

### I.—REVIEW OF THE BACTRIAN ALPHABET.

Whatever of modifications or discrepancies of form may be apparent in the Bactrian character, as opposed to the Semitic alphabets of the West of parallel date, there can be but one conclusion as to their joint derivation from a single parent stem. It would be absurd to suppose that the Phœnician and its cognate ramifications curtailed and yet complicated into the crude signs of their own system the more copious and advanced alphabetical series of the East. Indeed, there is internal evidence to the contrary, and the process of simplification of certain characters by the latter can be traced and detected in the mere mechanical configurations alone, and otherwise most of the changes and adaptations of the Arian scheme can be explained and accounted for by the double action of the needful increase in the total number of letters, and the effect of contact with the independently perfected alphabet of India proper.

The proofs of the common origin of the two styles of writing are to be found in the direction followed by both—from right to left,—in the leading idea of the construction of the majority of the characters of either, and, more definitively, in the approximation and close unity, in each series of the several forms of \( \bar{1}, \bar{1}, \bar{1}, \), and \( \bar{1}. \)

<sup>&</sup>lt;sup>1</sup> [It is perhaps necessary for me to explain more distinctly the reserve I feel called upon to exercise in this regard. Major Cunningham, some years ago, prepared and printed off a series of eighteen plates of Bactrian coins, designed for the ultimate illustration of his long contemplated work on 'The Successors of Alexander in the East.' These lithographs were most oblighingly communicated to myself, and others interested in cognate studies in anticipation of the due order of publication. They contain facsimiles of many important coins that I should have been glad to have cited to improve the series now given, but as I trust the author will shortly be enabled to make public his elaborated memoir, I ordinarily abstain from anticipating the novelties he has delineated, even under the full acknowledgment appended on the rare occasions that I have quoted from this source.]

In regard to the date of the elaboration of the improved system, it would be vain to speculate with any pretension to accuracy; but it may be safe to say, while adverting to the internal fixity of the Semitic alphabet and the very remote period at which it can be shewn to have been in free use, as well as to the material progress achieved up to that date, that the Bactrians must have separated and organized their system at an era considerably antecedent to B.C. 250, which is the earliest epoch at which any example of their epigraphy can at present be quoted.

Symptoms of such an independent advance may be tested in the fact, that at the period in question, many of those letters of purely Semitic formation, which were retained comparatively intact as representatives of identical phonetic values, are found to exhibit a far more striking approximation towards the ultimately accepted forms of the modern alphabet than their correspondent characters of the Western system in use under the Seleucids.

<sup>&</sup>lt;sup>1</sup> [For instance, its having formed the model of the Greek alphabet, which itself is admitted to have been employed in the 9th and 10th centuries n.c. Mure, 'Hist. Greek Lit,' iii., pp. 403, 424, 430, 456. M. E. Reman considers that there is evidence authorizing the induction that the Hebrews wrote in the 'phénico-babylonien' alphabet at the time of the coming out of Egypt. 'Histoire Générale des Langues Sémitiques,' p. 108. Paria, 1855.]

Sémitiques, p. 108. Paria, 1855.]

I am not able to discover upon what precise authority M. Renan extends the spread of Semitism to Bactria at the period indicated in the subjoined extract, but I conclude he associates it in some way with the accession of 'la dynastic (d'origino arienne) qui éleva à un si haut degré, au viii\* siècle, la puissance de Ninive,' and the subsequent establishment of the kingdom of Babylon:—'Un fait beaucoup plus important que tous ceux qui viennent d'être cités, est la transmission qui se fit, vers le viii\* siècle avant notre ère, de l'alphabet sémitique à tous les peuples du monde ancien, par l'action combinée de la Phénicie et de Babylone. Semé sur toutes les côtes de la Méditerranée jusqu'en Espagne, porté vers le Midi jusqu'au fond de l'E'thiopie, gagnant vers l'Orient jusqu'au Pendjab, b l'alphabet sémitique fut adopté spontanément par tous les peuples qui le connurent;' p. 195, 'Hist, Gen.']

L'alphabet phénicien était devenu, sous diverses formes, l'alphabet commun de tous les peuples méditerranéens, avant d'être remplacé par l'alphabet grec et par l'alphabet latin, c'est-à-dire par deux transformations de lui nême. Dans le monument de Téos, déjà cité, l'expression τὰ φοινικήτα (s. c. γράμματα) désigne le texte même de l'inscription.

b L'alphabet zend paraît se rattacher aux alphabets araméens. Quant au dévanâgari, son origine sémitique est restée très-douteuse, malgré les efforts de M. Lepsius pour l'établir.

Tracing more closely the internal constitution of this adaptive alphabet, we have to allow—(1) for the creation of nearly double the number of letters previously existing in any known Semitic series, incident to the linguistic demands of a more exact language; (2) for a hitherto-unheeded discrimination between consonants and vowels; and lastly, for that strange anomaly in Semitic writing, the introduction of the medial vowels in the body of, or attached to, the covering consonant, which was calculated so seriously to affect the normal form of the latter.

With these ample materials for comparisons and inductive definitions, it may be said that it should be easy to arrive at the truth; but it must be remembered that the very multitude and conflicting nature of the possible causes creates, in itself, a difficulty in selecting the ruling one. And as has already been remarked, we are not by any means in possession of the whole evidence in the case, but have to decide upon the facts presented to us by three literal series at a given point of their several histories, when each had already arrived at advanced maturity.

However, let the special instances be proven or not, thus much may be conceded on the general issue:—1st, That in the formation of the Bactrian alphabet the leading tendency was to follow Semitic tracings; 2nd, That the normal types of the parent stock were altered, adapted, and even devoted to new purposes, as occasion required, for the due exhibition of the more ample and exact speech they were now called on to embody; and 3rd, That the pre-existing and indigenously-matured Pálí alphabet of the South exercised more or less influence in the ultimate determination of many of the forms, more especially in regard to that extraneous element—the definition of the vocalic sounds.

With this limited preface I introduce the detailed examination of such letters of the entire series as seem to furnish data in support of the results above indicated, otherwise avoiding all notice of those characters which neither illustrate the general derivative question, nor present any difficulties in regard to their own forms and values.1

It will be seen that I follow the order of the Lat alphabet, as arranged by Prinsep in his early engravings.

- 1. Regarding the value of the letter k in its leading lapidary form, or its numismatic modifications, there has been from the first but little question. Some apparent anomalies, however, present themselves in the way of a ready determination of the prototype from whence the Arian letter derived its outline. The normal configuration of the Semitic >, Caph, seems to have been devoted, in the Bactrian system, to the representation of a new articulation; and the prevailing style of the Phoenician b, Koph, was superseded in the Eastern alphabet by the appropriation of an almost identical character as the exponent of s. And yet, amid the enigmas of Semitic palæography, it is curious to mark the community of design apparent between the Bactrian > of extreme Eastern maturation and one of the Aramsan varieties of the p preserved on the monuments of Egypt.3
- 2. The kh of the Bactrian system will be seen to have gone through a succession of forms, whether under its numismatic or lapidary prograssional course : this is possibly owing to its infrequent use, whereby it retained a less determinate position in the general alphabet. It is found on the coins of-(1) Antimachus; (2) Archebius; and (3) Kozola

If is needful that I should specify more precisely the nature of the materials whereby I propose to justify my inferences;—1st, In regard to the lapidary characters. The Kapurdighri inscription may be examined in Mr. Norris's most scrupulous mechanical transcript, copied from an inked-cloth impression taken from the rock itself, and published in the 'Jour. Roy. As. Soc.,' vol. xii., p. 153; as an additional verification of the facsimile, I have been able to consult the original calico transfer, in some cases available in duplicate, as well as Masson's own eye-transcript, executed with such obvious care and accuracy on the spot; and, finally, advantage has been taken, in the few possible instances, of the seemingly correct outlines afforded by an indifferent Calcutta lithograph, designed by Mr. J. W. Laidlay, and purporting to have been drawn from a facsimile by Captain A. Cunningham, copied in situ.—The Manikyâla stone inscription is engraved in pl. ix. of this work, and the entire transcript has been compared and tested anew, from the original—now rectified as to its position on the walls of the Bibliothèque Imperiale—since my remarks at p. 125, vol. i., were printed off. The Wardak inscription, which may be classed with the monumental rather than with the rumismatic section of palæography, is reproduced in pl. x., and the urn itself is before me for reference. The numismatic characters are necessarily gathered from diverse sources, which it would be tedious to expose at large. It may be sufficient to say that the apparent age of the coins has ruled the order of the several exemplars inserted in the plate of alphabets.]

2 [J or jā, úgfrd.]

<sup>&</sup>lt;sup>2</sup> [J or jh, infrd.]

<sup>\* [</sup>See Gesenius, Carpentras Inscription, tab. 4; and type table of Semitic Alphabets infrá, series No. 3.]

Kadaphes, in each case in correspondence with the Greek x. Kapurdigiri outline is well ascertained, and equally so is its value, as the equivalent of the Páli 1 = W. I have not been able to trace it very positively in the Manikvála writing, and the form I adopt from the Wardak urn is likewise only conjecturally inserted in virtue of outline similarities. I have also entered in the plate the most prominent of the numismatic varieties, whose originals seem often to exemplify the mere crudities of imperfect engraving; but the letter, as it appears on one of Archebius' coins,1 presents a striking peculiarity in the supplementation of a small hook, such as is used to denote the simple >, which would almost seem to indicate an acknowledgment of the necessity of some further means of discriminating a character, in many instances liable to be taken for a t or an r. The precise sound of the ancient Semitic n Kheth (Hheth or Cheth) is not very well determined; and if it were not for the seeming approprintion of the design of the legitimate Phoenico-Babylonian r to the representation of the Arian ch, it might be possible to refer the origin of the Kapurdigiri guttural to a reduction of the superfluous lines of the Achiemenian B, to which stage the complicated figure of olden days had already been brought, and whose unchanged outline was finally accepted by the Greeks as their aspirate H.

3. Ψ - A T. This letter, regarding which some doubt at first existed, is now the received exponent of the sound indicated by the characters of the kindred alphabets set against it. The only difficulty connected with it consists in the question which necessarily arises as to what effect the horizontal foot-stroke, occasionally supplemented to its radical form, in common with those of the 4 j and 7 t, may chance to have upon its ordinary phonetic value. The Kapurdigiri Inscription, with a single doubtful exception,2 leaves the original letter unadded to, and the Manikyála stone alike abstains from the augmentation. The Steatite urn (pl. vi.) seems to insert the stroke in the one case in the word अगवान and to omit it in the second version of the same title.3 The Wardak Inscription, which, it may

<sup>1 [</sup> In the possession of Colonel Abbott.]

<sup>&</sup>lt;sup>2</sup> [ The instance I refer to occurs in the 14th line in the word gabagarasi, corresponding with the Girnar Pali gabhagaramhi. The first g has the horizontal footstroke, which is clearly to be traced in the cloth impression: it is also entered in Mr. Norris's first copy from that facsimile, but it has been omitted in the lithograph. Masson's eye-copy gives it in full distinctness; and Major Cunningham's transcript. fully acknowledges the existence of some such mark, though in the Calcutta lithograph the sign is transformed into an anuscoira.]

<sup>&</sup>lt;sup>3</sup> [ Prinsep, I see, has given it in both cases; but there is no trace of the line on the lid of the vase itself.

be added, will be seen to contain a striking number of  $\mathbf{A}$ 's in proportion to the rare occurrence of the letter in the cognate inscriptions, must be supposed to insert the sign or its substitute, in the form of a back stroke (easily confounded with the subjoined  $\mathbf{T} r$ ), in the majority of instances, while, in one case, the g is positively deficient in that or any other subjunctive mark.

For the present, therefore, I am disposed to conclude that this line constitutes a mere optional addition to the simple letter, possibly having its origin in a design more completely to distinguish the g from some of the literal compounds, with which it was liable to be confounded.

Regarding the origin of the character itself, I should be inclined to attribute its derivation to a semitically outlined and more cursive imitation of the Pálí  $\iota$ . The proper h g of the Pálí series, which so nearly corresponded with the Phænician g, will be seen to have been devoted to other purposes in the organization of the Bactrian alphabet; hence a new form had to be found to represent the functions of the g, which it is easy to conceive may have been taken from a character of proximate sound in the independent series of the South.

- 5. so ng. Major Cunningham claims, among his other discoveries in the Arian alphabet, to have detected the sign employed to represent this sound. I have had occasion to doubt the finality of this assignment (vol. i., p. 102), and for the present am constrained to leave the Arian column of equivalents of this letter unfilled.
- 6, 7. I pass by the various forms of \ and \ and \ b, which are sufficiently assured in their early demonstration, as well as obvious enough

<sup>1 [</sup> Y. No. 26.]

<sup>&</sup>lt;sup>2</sup> In addition to the proved example of the letter on the Behat coins, it is occasionally met with in monogrammatic combination on the Azes series. It also occurs in the last line of the Wardak writing (pl. x.), and in Captain Pearse's copper-slip inscription, 'Jour. As. Soc. Beng.,' vol. xxiv. (1855), pl. xv., p. 328.]

in their subordinate gradations, as exhibited in the plate, merely noting with reference to what has already been said on the derivation of the Bactrian kh, that the simple form of the Achemenians and Artaxerxes Longimanus, or their joint prototype, may well be imagined to have furnished the model of the less stiffly-fashioned Bactrian ch.

8. y = 8 mg. I proceed to consider the various equivalents of the letter j. The Kapurdigiri and Manikyála outlines of the character closely accord with the simple numismatic type, while the dotted inscription on the Wardak vessel develops certain vaguely executed forms, which are scarcely consistent with one another, but which may generally be said to shew a considerable modification of the primary design.

The peculiarities in the numismatic character consist in some cases of an apparent duplication of the letter by the insertion of a second forward limb, and in the nearly uniform addition of the horizontal foot-line noticed as in occasional use in connexion with the normal form of g. And in these instances, also, I am almost forced into the conclusion that this extra line was not designed to have any effect upon the articulation of the consonant, as the same word, Rajadirajasa, is written alike, with or without the lower lines of the j's (ex. g. Eukratides and Kadphises), though the earlier examples affect the former, while the later return to the monumental outline. regard to the association of the normal letter with any character of Semitic organization, I may note its near correspondence with some of the secondary forms of the Western 5, though it is clear, if any such identity is to be admitted, that the sign must be understood to have been appropriated to the expression of a foreign and very different sound in the Eastern system.

9. The definition of the Indian Pálí form of the jh was effected by Prinsep in March, 1838 ('Jour. As. Soc. Beng.,' vol. vii., p. 272; suprd, vol. ii., p. 36). As the Kapurdigiri correspondent passages, wherein this letter might have been expected to be met with, were defective in the one place (tablet vi., line 7), and differently east in the other (tablet xiv., line 2), the Arian configuration of the character has hitherto remained undetermined. The authority for the present assignment rests therefore solely upon the legends on the coins of Zoilus, where the letter copied in the plate is found as the representative of the Greek z in the king's name. It will be remembered that the Devanágarí alphabet possesses no equivalent of the letter z;

<sup>&</sup>lt;sup>1</sup> [ Some of the Azes' coins so far modify the shape of this adjunct as to give it a merely forward direction from the base of the letter, in seeming conformity with the parallel simplification noticed under the letter g, p. 149.]

and although modern practice, under the necessities of the adaptations of a foreign tongue, may often substitute the simple of for the Arabic j, this constitutes no obstacle to the free acceptance of the above identification. The Greek z, it may be noted, is rendered in Arian by the letter p = S (see Philoxenes). In this instance, as in those about to be noticed under Nos. 11 and 12, a difficulty arises as to whether the simple letter or its aspirate should be accepted as the more direct derivative from the parent alphabet. Gesenius' early forms of the Semitic 2 CapA, as well as the leading column of the Due de Luynes' alphabets, would favor the claims of the latter, while the Achsemenian and other proximate reproductions of the same letter approach more nearly to the linear rudiments of the former.

- 10. The Arian letter, answering to τη, seems to have been primarily deduced from a duplication of the upper limb of the ordinary; n to meet the requirements of due correspondence with the more exact and ample alphabet of the South. Its use in the Kapurdigiri Inscription is not exclusive in its accordance with the Pálí τ. It is found in substitution of τ = τ in hiranne (line 17), and (if the word is not misread) as the equivalent of τ ny (line 3); but where such strange liberties are seen to have been taken with the orthography in other parts of the writing, these departures from the intentional standard need not disturb the recognition of the leading value of the sign.
- The Arian cerebrals, t, th, in their relative configuration, seem to carry out the general idea of the Pálí alphabetical system, which associated the simple letter and its aspirate under more or less community of form, though in this instance the normal character would appear to have been retained for the representation of the aspirate, while the corresponding simple letter was constructed out of its elements by a slight modification in the arrangement of its original The earliest Semitic n, as its name implies, consisted of a simple cross, and in such guise it clearly found its way into the Bactrian literal series. That it should be adapted to the exposition of the Eastern th, rather than to that of the simple T, to which the Greeks devoted it, need cause no surprise, as it is clear that th (as in 'think') was the primary and preferable equivalent of its sound, notwithstanding that the second and more dubiously aspirated t, p teth, which co-existed in its own alphabet, was converted in the Hellenic system into 0.

It is curious also to note, in the Kapurdigiri inscription, what may possibly chance to be a parallel simplification of the dental t out of the complicated lines of the th of the same order of consonants; except

<sup>&</sup>lt;sup>1</sup> ['Cujus nomen (19) signum eruciforme significare constat.' Gesenius, p. 47.]

that, if this derivation is to hold good, the supposition of the conversion of the Semitic  $\gamma$  into the former letter must fall through, and to the cerebral dh of the Bactrian scheme must be conceded the title of inheritance of the alphabetical outline of the Phænician Daleth. Though, in this case, as the primary form of the original Semitic b teth, like its derivative denomination, is indeterminate, and the Bactrian adaptation is equally uncertain in its point of departure, it will, perhaps, be preferable to adhere to the definition which supposes a construction of the simple  $\gamma = t$ , in unison with the parallel development of b and b c from the nearly identical rudiments of the simple letters of the earlier series, and consequently to regard the adaptive dental b as a linear improvement upon the tortuous form of the Western alphabets, and as based in one portion of its configuration at least, upon the modified representative of its own simple letter.

13. The d is an alphabetical sign of limited use; but it is of consequence correctly to determine its normal form, with a view to the illustration of the history of the associate characters of approximate sound, and the determination of the progressive modifications of the letter itself. Its positive shape in its monumental expression is sufficiently defined (as given in the plate)1 by the Kapurdigiri Inscription. It would seem to retain its original outline in the Manikyala writing, and is frequent amid the coin legends, though strange to say, in these instances it never occurs in its full and definite development as an isolated and uncombined letter, but only appears in its true shape in composition with the vowel i, to receive which its side limb has to be considerably prolonged: hence a question arises as to whether the radical configuration of the character was not subjected to a modified design in its ordinary expression as a simple letter; as such, it may possibly have furnished the model for the sign usually exhibited as 1; and it is clear that the resulting elongation of the upper line and the rounding off of the angular turning point might easily occur in the ordinary degradation of the character. And this suggestion brings me once more to face an acknowledged difficulty,-the intent and meaning of the horizontal foot-stroke attached. Hitherto I have had to deal with letters that derived little or no advantage from this supplementation; now a new light seems to break upon the subject, and it would almost appear that the foot-line in this case, like the Parthian semicircular dot of Naksh-i-Rustam, still extant in the discritical mark of the Syriac > d, was designed to discriminate the d, or at all events to distinguish it from some character

<sup>1 [</sup>It is equal to g in tablet iv., line 12, and tablet vii., line 2; but it corresponds with g in tablet vii., line 3, in ekadesom.]

nearly allied in shape but differing in phonetic value. As a general rule (for there are few exclusively consistent ones in this series), the character used to express d is individualized by the cross-stroke, while the almost identically-formed t's and t's are preferentially left unmarked.\(^1\) The value of the letter \(^1\) as d, whether doing duty as cerebral or dental, is proved by its alternation and interchange with the true dental s in the antepenultimate in the name of Apollodotus, and in the titles Tradatasa and Rajadiráj. So that, whether we accept it as a derivative from the old  $q = \frac{1}{2}$ , or as an ordinary  $q = \frac{1}{2}t$ , adapted to a modified articulation, its reciprocal value remains much the same.

- 14. The cerebral  $d\lambda$  is not a letter in frequent requirement, and though the Arian equivalent is freely developed in the lengthened edict of Kapurdigiri, it need cause no surprise that it should not have been met with amid the brief legends on the coins, especially when it is seen how little discrimination was made between simple letters and aspirates, and what scant scruple was exercised by the die-engravers in the interchange of one d for another, or the more vague substitution of t's<sup>3</sup> in place of d's.
- 15. The cerebral n well retains its original Kapurdigiri\* identity in the later Manikyála lapidary writing, and on the engraved silver disc from the same locality. Among the modified letters of the Wardak inscription it is more difficult to determine its correct correspondent; for, if we are to follow the Manikyála inscription, the ordinary w has now become p, which form duly appears on the brass vessel; but the w is here so far changed as in some cases almost to look like a return to the model of the early s w of the Kapurdigiri legends.
- 16. The ¬ = λ π, is a letter which admits of but little question, from its first appearance on Asoka's monumental edict to its latest use upon coins. Its form is of importance under the comparative palæographical aspect, in that it assimilates so closely in its simple outline to the nearly homophonous Hebrew ¬ d of modern days, thus exhibiting the more speedy advance towards maturity of the Eastern system in contrast to that of the West, whose expression of the letter in 250 B.c. had in most instances diverged but little from the primitive sign.
- <sup>1</sup> [Ex. gr. Eukratidasa. Tradatasa. Some of Apellodotus' coins mark the penultimate i, but in the better executed specimens the foot-stroke appears as an . See note on that name in the Coin Catalogue.]
- <sup>2</sup> [Among other inconveniencies of imperfect type, it will be seen that I am compelled to use the same sign for j and d. The real difference between the two is properly discriminated in the plate.]
  - <sup>3</sup> [Coins of Azes, et. seq. 'Wardak,' i., p. 163.]
- \* [Precision in the use of this  $\mathbf{u}$  seems to have been as little regarded as in other cases already noticed. Ex. gr.  $\mathbf{q} = \mathbf{I}$  usually.  $\mathbf{q} = \mathbf{L}$ , 4, 9.]

17. The letter th, in its early lapidary development, likewise admits of but little cavil; but it is doubtful whether its form is to be detected amid any of the inscriptions or coin-legends subsequent to its proved appearance on the Kapurdigiri rock. Its derivation, as well as that of its fellow t, has been already commented on in association with Nos. 11 and 12.

18. (= > ₹. Regarding the letter d in its isolated aspect but little need be said; its absolute identity, in the earliest form of which we have knowledge, with the ordinary ; = w of the same alphabet, is singular, and often proves inconvenient. It appears to be but little changed in the process of time intervening between the endorsement of Asoka's edicts and the engraving of the Manikyala stone, though the associate a in the latter writing seems to have been considerably modified from the old type. On the coins, this d remains but little varied, either under the provincial or ordinary progressional influence. I have still to speak of the subjunction of the horizontal foot-stroke. If the theory be sound that this adjunct is attached to d's and other special letters, and is never supplemented to the n's,1 then the second letter of the ordinary form of the name of Menander must be read as a d, which is certainly opposed to the probabilities of orthographical transliteration. If there were any authority for so doing, I should prefer to interpret the single compound as nan, assuming the foot-mark to be a mere simplification of the arrow-pointed snuswara of the Kapurdigiri system; but here, again, difficulties present themselves, as the sign can scarcely be uniformly accepted as the mark of n, and indeed as a suffix to the s's and P s's, it affects another form. It would still be possible to infer that the discriminating sign of the d here supplemented to n might stand for the duplication of the succeeding d, in accord with Pálí requirements of orthographical expression : but I should be sorry to propose so hazardous a conjecture without more definite and positive evidence than I am yet in possession of. To dispose of the succeeding letter in Menander's name, under this, its proper heading, I may note that the character hitherto received as n. appears, from an examination of the best specimens of the multitudinous hemidrachmas of this sovereign, to be a combination of the equivalents of drá.

19.  $D = \frac{3}{3} dh$ . The definition of this letter is well ascertained,

<sup>&</sup>lt;sup>1</sup> [Certainly this latter rule seems to hold good, with the single exception, if such it be, here noted. I have nowhere else succeeded in finding a pointed n.]

<sup>\* [</sup> For a long time the Parthian dh was supposed to be represented by an outline similar to the above. The correct form is given in the plate, under ¬. (See 'Jour. Roy. As. Soc.,' vel. x., p. 118; vol. xii., p. 264.]

and its outline undergoes but little change throughout the entire period represented by the various Arian writings antiquarians have as yet been able to assemble for scrutiny and comparison. I notice it in this place merely for the purpose of drawing attention to the curious coincidence of its form with hat of the Achemenian letter (522 to 456 s.c.), entered in the Phœnician series of the Duc de Luynes as the equivalent of the \(\frac{\cup}{2}\) Trade. This outline, it will be seen, departs notably from the ordinary run of the derivations from the old Trade; and hence a question might arise as to whether the exceptional letter may not have been borrowed from the independently matured Bactrian series to represent a sound not very dissimilar to its own, but whose precise articulation did not exist in the Arian system.

- 20. (= 1 ₹. The Kapurdigiri n of manifest Semitic derivation. which here had to represent the sound of d or n at will, seems to have preserved its, to us, normal form on the early coins of the Greek monarchs. Menander, at least, uses it in near parallelism with its counterpart d, and Philoxenes places its import as n beyond a shadow of a doubt, by inserting it as the penultimate letter of his own designation. The character, however, was soon doomed to modification, whether on account of the objection to one symbol having to represent two diverse sounds, we need not stop to inquire; but on the hemidrachmas of Dionysius the n has become little more than a perpendicular line, and stands in strong contrast to the initial d, which follows the old model. On the Kadphizes' coins (No. xxvi.) the w is formed almost like a Greek P of the obverse legends, and approximates more to the old design of the than to that of the simple . On Kozola Kadaphes' coins the s is figured as a perpendicular line with a single arrow-barb on its top like the letter I have transcribed as w from the Manikyála stone and the Wardak urn; and, finally, on some of the Bactrian Satrap coins the letter appears with the full arrow-point, which may either indicate a modification of the form or value of the character, or may simply imply the addition of a short vowel to the original letter.
- 21. P.—The Arian p is a letter which presents no difficulty, either in its original ascertainment or its use in its onward course. But it claims special notice, in companionship with the I of the same series, on account of its departure from the standard Phoenician type, in the direction assumed by the indicative adjunct, which constitutes the very essence of the character. The Semitic η is shaped like a Bactrian 9 a: that is, the distinguishing curve from the leading down-stroke is turned to the left, while the letter 5 of the former series produces the side curve to the right. In the Arian alphabet both these methods of formation are abandoned in favour of a directly opposite mode of

definition, which strikingly identifies the resulting characters with the corresponding letters of the Pálí. These coincidences may, of course, be purely fortuitous, but, taken with other indications of connexion between the two schemes of alphabetical notation, I am disposed to accept the double evidence as more d t notly evincing a designed change.

- 23. The Arian b is the letter of all others that most intimately identifies its own alphabet with the parallel Semitic offshoot of more Western culture. The derivation from some common parent being admitted in each case, it is curious to mark the independent development of the early Bactrian type of 250 s.c., as opposed to the stationary Phonician 2 in use under the Scleucidse; and, progressing onwards, it is still more strange to note the large amount of derivative identity the Parthian letter of Ardeshir Bábegán holds in common with the Bactrian character of earlier days, as well as the close similarity of the joint resultants more definitively exemplified in the Partho-Bactrian coinage. Further, among the coincidences attending the evolution of alphabetical symbols, it is singular to note a parallel advance towards the most approved modern form of the character achieved proprio motu by the Palmyrene writing.
- 24. The of M. The shape of this character is as well defined and equably sustained, as its value is undoubted; but little, therefore, need be said in reference to it. It would, indeed, have been a matter of interest to have traced the possible combination of alphabetical rudiments whence it derived its standard configuration; but, as our starting point for all comparisons consists in an already matured literal series of many centuries growth, it would be useless, in the absence of the more primitive forms, to institute any contrasts based upon materials apparently so largely modified from their primary outlines.
  - 25. U = ¥. At first sight the Bactrian m might be pronounced to

<sup>&</sup>lt;sup>1</sup> [Gesenius, tab. v., pl. xi. e, and Type Table infré.]

have nothing in common with the Semitisms of the Western alphabets; but on examining the question more closely, it seems by no means impossible to conceive that the Eastern product retained in effect a portion of the original elements of the ancient character. The rejection of the superfluous down stroke of the Phœnician m, which, as it stood, conflicted with the Arian di, would reduce the former letter into the Eastern representative of mi, and the further necessity of again discriminating the uninflected consonant from this latter combination may reasonably have led to the ultimate simplification of the current form of the m, and the reservation of the cross stroke for its own proper purpose, as the sign of the medial vowel i.

- 26. ∧ = v. As with the m, I was almost on the point of pronouncing against any possible Semitic influence in the formation of the Bactrian y; but it is clear that, if the doctrine of intentional simplification of the characters under the needs and requirements of a more perfect language is to be held valid, much of the primary identity of the Phoenician ' might be traced in the form ultimately adapted to the Arian alphabet: here, again, a rejection of the redundant upstroke, which in the Eastern scheme constituted the suffix r, and the omission of the second down-stroke of the Western palatal, which expressed an o in the Arian series, would leave the character very much in the form extant upon the Kapurdigiri rock. Though I confess that, knowing as I do how much mere mechanical comparisons of forms, under imperfect data, are liable to mislead, I am unwilling to press such arguments, or to claim more than a possible association of minor coincidences, where the broad question is supported by such definite evidence.
- 27. 7 = 1 T. The letter r of the Bactrian series, as found in the monuments of s.c. 250, is of high importance in proving at how much earlier a date it had become developed into the since dominant Hebrew form than the same character of the cognate alphabets of the West. That it is fundamentally the same letter in both may easily be conceded; and the manner in which the nearly fellow character, the t of one series, the d of the other, advanced into maturity, is likewise striking. The same may be said of the  $1 = \pi v$  of the Bactrian and the \ was of the Western scheme. As a simple letter, the standard r remains but little changed. In combination, however, like the anuswara of the Bactrian system, it presents difficulties from the innate obstacles to the conjunction of the literal forms of Semitic alphabets, which, even under the necessities of Arian speech, seem to have progressed but slowly, and by imperfect rules, in this direction. The small back stroke at the foot of the covering consonant clearly

stands for the letter r; but it is a question whether the act of subjunction invariably implied the suppression of the short sound of a inherent in the leading consonant; and supposing such to be the ordinary intent and purport of the act of combination, it is doubtful whether the brief a is absolute after every open consonant. incompleteness of literal definition, so characteristic of all Semitic writing, much must necessarily have been left to the reader's knowledge of the speech so symbolized, to supply orthographical deficiencies; and as we find the compounds San, Sin, etc., so we may fairly assume that the Dhrama of Kapurdigiri and the Dhramika of the coins were intended to be read as Dharma and Dharmika (UH); the Southern Pálí of course duplicated the m in lieu of the compound rm. Major Cunningham has discovered a method of combining the rm, subsequently introduced into the Bactrian numismatic alphabet, whereby the 's was run into the u for the apparent purpose of stifling the intermediate a; and I am the more disposed to concur in this assignment, since I imagine I observe in all the words representing Dharma, wherein this compound is used, that the tail stroke of the usual subjunct r is rejected from its place at the foot of the dh.

Among other progressive efforts towards the due discrimination of the superposed r, I detect a remarkable, though solitary, instance of its expression by a dot above the succeeding consonant in the name of Arkhabiyas. This means of representing the r is somewhat in parallel accord with the system of the South, where the sign was figured as little more than a prolonged dot above the conjunct letter. But even among these Pálí alphabets we have no very positive example of its employment prior to the Sah inscription at Girnar, though there is every reason to suppose that it was in use much earlier than the date of that writing.

- 28. The formation of the Bactrian I presents no peculiarity demanding comment. I may, however, note its representation by the letter r on the medals of Heliocles, and I may refer to the substitution of I for r in the Dhauli inscription, and the parallel interchanges of these letters in the Western languages of Persia. 'Jour. Roy. As. Soc., xiii., 375.1 The Parthian I, it will be seen, retained much of the original figure of the Bactrian type, and had nothing in common with any of the direct offshoots from the Phœnician model.
- 29. 7 a. The v of the Bactrian system may be fairly taken to correspond with the original idea of a Semitic \ saw; indeed, some of the intermediate forms of the latter consonant-vowel assimilate completely with the outline of the analogous semi-vowel of the Eastern series.2

<sup>1 [</sup>See also 'Caldwell's Dravidian Grammar,' p. 120.]

<sup>&</sup>lt;sup>2</sup> [Gesenius, p. 26, and tab. i., 4, 5; Judas, tab. i., and Type Table éafrá, series 1.]

The identities of the  $\neg v$  have been already alluded to, vol. i., p. 103. The letter is only further remarkable for the difficulty with which it is at times discriminated from the nearly similarly outlined t's and r's. The intentional distinction seems to consist in the more straight formation of the head line, and the angularity given to its point of junction with the down stroke, which also participates in the lesser degree of curvature. At Manikyála a further divergence may be detected in the extra length given to the perpendicular line.

- 31. & = p. I am unable to detect any direct affinity between the earliest monumental form of the common Bactrian s and the antecedent outlines of the Semitic p. The nearest approach, indeed, to the ordinary configuration of the Eastern letter is afforded in the p of the Western system. The Duc de Luynes enters, under the Seleucidan period, a form of p nearly identical with the Arian numismatic symbol, but the ascertainment of the value of the character is marked as doubtful, and even if finally admitted, I should prefer to pronounce in favour of its derivation from the Bactrian exemplar, rather than the indebtedness of the latter to the Western source. The formation of the Kapurdigiri s seems to have been effected by the delineation of a downward curve, but little dissimilar to the ordinary b, into which was inserted a perpendicular line,—a method of definition which the Sinaitique D (circa, 18 s.c.) seems singularly enough to have preserved. In progress of time the Arian s becomes more cursive, or rather takes such a form as should avoid the necessity of a second application of the pen. Under neither form does it seem to have anything in common with the Pall &.
- 32. \(\pi = \pi\). The second, or palatal, s of the Arian series need scarcely be looked for among the signs of strictly Semitic origin, and may be accepted as an independent invention to meet the wants of Sanskrit vocalization.\(^1\) The earliest Pálí form of this \(\pi\), as I have before remarked, seems to have been borrowed from the Bactrian outline which stood for the \(\pi\). The Southern ediets of Asoka make use of but one s, and the contrast between the two systems of writing, in this respect, may be readily exemplified in the word \(\Pi\)\(\pi\) susuahs of the Arian inscription, which is written \(\pi\)\(\pi\
- 33. Φ = ψ. The Arian sh, unlike the letter last referred to, must under every aspect be supposed to have had a counterpart in the languages of the West, and its identity in shape with the secondary

<sup>&</sup>lt;sup>1</sup> [I have elsewhere adverted to a possible Parthian derivative from this character, but as the language of the Bilingual inscriptions, wherein the former occurs, is still undetermined, the value and association of the Western form remains purely conjectural. See 'Num. Ch.,' xii., 78.]

forms of the Phoenician w is sufficiently striking. Its absolute inversion, under its Bactrian adaptation, need cause no surprise, as the obvious necessity of discriminating its power from the compound me, whose outline, under the local system of insertion of medial vowels in the body of the covering consonant, exactly imitated the configuration, and hence the latter may presumptively be taken to have conflictingly superseded the proper functions of the ordinary sh; which sibilant had therefore to be provided with a distinctive though not altogether novel form of character.

34, 35. 7 = w 7 = wr. The Bactrian alphabet, in common with the Indian Pálí, possessed distinguishing signs for the long and short vowel a, though it was deficient in this respect in the quantitative symbols for the i and the u, for each of which a single form had to respond to the double articulations. The Arian system, like its Southern associate, duly contrasted the initial and medial outlines of both vowels and diphthongs. The initial forms of the soft and hard a's are marked in plate xi., the authority for the latter resting solely on the numismatic character made use of, with dubious propriety, in the name of Apollodotus. The Kapurdigiri Inscription either does not mark the difference between the powers of the two vowels, whether initial or medial, or the failure to discover the additional sign, must be attributed to its shape and isolation from its covering letter, and the state of the surface of the rock, which was evidently opposed to its detection, unless the observer chanced to know sufficient of the language to expect and seek for the simple dot which constitutes the essential difference. As a medial, the short a may be held to be ordinarily inherent in each consonant; and the long a, in appropriate coincidence with the arrangement of the other vowels, is defined by the detached dot, the discriminating adjunct of the  $\dot{a}$  initial.

The Bactrian 9 admits of no approximation to any of the purely Semitic forms of R; indeed, it approaches nearest in identity to another

<sup>&</sup>lt;sup>1</sup> [Colonel Rawlinson has annexed to his exposition of the value of the Persian cunciform a an elaborate note ('Jour. Roy. As. Soc.,' vol. x., pp. 54, 78), on the general subject of Arian a's and their correspondents in the Semitic system. One of the few points upon which I altogether dissent from his conclusions is his assumed derivation of the Parthian and Sassanian a's from the original Hebrew y Ain. The languages in question, so far as we have present knowledge of them, did not need any alphabetical symbol for the latter utterance; indeed, when Arabic came to be written in Pehlvi characters, the simple w of the old series had to perform the representative functions of the foreign articulation. It seems much more reasonable to infer that the Eastern copy of the a (whether exclusively devoted to that vowel, or permissible as a substitute for y in the conterminous dialects), was based upon some of the varying forms of the original Phoenician s rather than upon the outline of a letter for which the adapters had little or no use, and whose normal and subsidiary configurations were almost without exception opposed to the graphic delineation eventually adopted into the derivative alphabets. Cf. also Gesen., p. 21, etc.]

lefter of the Western series, namely, the p. It is possible that this character may have been incorporated from the common stock, and subjected to new duties; but I should prefer to suppose a positive invention of a new character, or a very marked simplification of the complicated crossstrokes of the earliest &, rendered requisite, like many of the other changes, by the necessity of avoiding complex outlines among the radical letters, with a view to their facile reception and legible representation of the short vowels in combination.

The radical form of the full or initial Arian 2 = a claims extraneous attention, in the fact that its outline constituted the basis for the construction of all the other vowels and diphthongs of its own alphabet, which are severally distinguished by the additional marks supplemented in each case to the normal s, while the same discriminating signs suffice, in combination with consonants, to represent the medial form of their several fundamental letters.

An indication of no little importance in the question of derivations, developed by this law, is to be detected in the imitation and simplified extension of the orthographical rule of the Pali, which took the inital M as the basis of certain other vowels and diphthongs, discriminating them from the simple letter a by supplemental additions; thus N a became y a, y o, y an, etc., while i, e, w, had separate forms. The Arian scheme, following out this notion with more effective systemization, made ? the groundwork of the entire vocalic series.

- 38. The vowel a demands a passing notice, rather for the modification it undergoes than for any difficulty in its recognition. initial on the Kapurdigiri rock is formed by the addition of a footline to the standard a, in the forward direction of the writing; and a similar mark effectively fulfils the duty of the medial vowel in combination with consonants. An optional interchange of symbols for the initial may be observed on the coins of Eukratides, which is instructive as evincing the limited precision of the orthographical science of the period. In some cases the opening syllable of this name is defined by a combination of the medial sign of the e prefixed to a squarelyoutlined a initial; in others, the sound of eu is represented by a fully developed initial  $\sigma$ , followed by an unattached and completely formed initial u. The numismatic u medial is speedily transformed into a loop, which form it retains throughout its later monumental course.
- 41. The equivalent of the Sanskrit on is formed in the Kapurdigiri inscription of the subjunction of an arrow-point to the foot of the normal ? a, and may reasonably be supposed to figure in convenient modification of the standard o m, whose sound it convertibly responds to. A similarly outlined suffix is used for the same purpose in com-

bination with consonants, as in Kambayi, Gandharanam (tab. v.). On coins the stiffness of the adjunct is amended by its transformation into a semicircular curve in continuation of the down stroke of the 3 a, a symbol which, it may be remarked, still retains the elements of the primary o m. The change may be attributed to the greater facility of expression, incident to the continuous use of the pen in current writing, as contrasted with the earlier chisel sculpture of lapidary epigraphy, which had nothing to gain by uninterrupted lines. This numismatic suffix appears frequently on coins and inscriptions of more recent date conjoined with the letter p s, in positions, as regards the latter, which clearly necessitate the interpretation of the compound as san, 'year;' though I notice an apparent inability to define the requisite anuswara in combination in the names of Menander, Amyntas, and Gowdophares, which it is difficult to account for.1

32. The st of the Bactrian alphabet is remarkable as being the only standard compound consonant in the entire range of the Kapurdigiri edict; the subjunction of the r was allowable with any consonant that required the combination; but the suffix of the t, or rather its incorporation with another character into a distinct sign, was reserved for the conjunction now cited; and this compound retained so much of the force of a distinct letter that it admitted of the insertion of a vowel or the subjunction of the r like any other simple consonant. The divergence from the Kapurdigiri outline in the later examples of its use is limited to a straightening off of the cross-lines, whereby it is conveniently discriminated from the character i or hi, with which it was otherwise liable to be confounded.

Before taking leave of these imperfect contributions to the

<sup>1</sup> [Colonel Rawlinson attributes these omissions to a general orthographical law common to the Persian cunciform and the Bactrian systems. His remarks on the subject are as follows :-

"I need not multiply examples of the absorption of the nasal, as the first member of a compound articulation; for I have already, as far as argument is concerned, abundantly verified the existence of such an orthographical law; and it is one, moreover, with which the identical construction of the numismatic Eastrian has long ago

familiarized Orientalists.'

familiarized Orientalists.'
Colonel Rawlinson is in error in regard to the second and third names quoted, the insertion of the ansawors is palpable and undoubted, and, when looked for, it is visible enough in one instance in Major Cunningham's plates, on whose authority I conclude the author speaks. The Kapurdigiri inscription further evidences that this assumed rule, if sound at all, is, in practice, rather constant to the opposite effect, as I may instance at hazard from the names of Devanasspriya, Autiyoke, Awtikina, and the words poshasdeshu (tab. v.), athasawtiransya (tab. vi.), etc.]

\* 'Remark the orthography of the names of Menander, Antimachus, Antialkidas, Amyntas, etc. In Indian Pali the nasal is preserved before the consonants of all classes. See 'Essai sur le Pali,' p. 80.' 'Jour. Roy. As. Soc.,' x., 132.

history of Bactrian Palæography, and terminating these introductory remarks by the exhibition of the positive data of facsimiles, I desire to advert cursorily to the Parthian or Chaldreo-Pehlvi and the cognate Sassanian-Pehlvi literal series, exemplars of each of which have been inserted in pl. ix. The first of these claims its position in the general inquiry, in appropriate elucidation of many of the alphabetical coincidences and derivative identities already adverted to; the second founds its title to notice, in this place, upon its apposite intermediary position in the progressive palæographic development of the writing of Asia and the important part it will be seen to have played in its position, as the sole apparent vehicle of speech, whether official or domestic, under the specially national reconstitution of the Persian empire, and the influence that, even in its official extinction, it carried with it into the learning and literature of the conquering Arabs; while its alphabetical forms and difficultly-comprehensible language survive so largely in their fitting

\* [ Here is their own testimony to one most important fact in the history of civilization:—در عهد عبدالملک جراید دیوانی از صورت فارسی باعربی جراید دیوانی از مورت فارسی باعربی M.S. 'Tarikh Guzidsh.' Even so late as 318 م.س. the Arabs were still translating Pehlvi books.—See Reinaud, 'Abulféda,'

I I have for long past insisted upon one deduction of high import in the history of the Zoroastrian languages, 'in the significant fact implied in the extensively prevailing use of the Pehlvi character, as prived facis evidence of the existence and currency of the language itself, or of its mere dialectic modifications. I would eite the universality of its influence throughout nearly the entire Persian empire; its employment as the vehicle of expression for the monumental records of the kings; its uniform official currency in the numerous mints of the Sasaanian empire; and the geographical definition of its boundaries from the Tigris and the Persian Gulf on the S.W., to Merv and Zabulistan on the N.E., as manifested by the legends on the Arab coins issued within or near those limits. But beyond this I would now exhibit its acceptance in the affairs of private life, as exemplified by the prevalence of its literal forms on the signets and seals of every-day use. And I would claim this much of deduction from the facts available, that whatever other forms of speech may have existed in the land, whatever of more perfect systems of writing may have been known or employed, it is clear that the seventeen letters of the Pehlvi alphabet sufficed to express all that either official routins or ordinary business transactions required. From our inscriptions and coins we can fix with precision the date of the currency of this style of writing, and unhesitatingly claim its dominance in Persia from a.b. 223 to A.R. 76 (A.D. 695). Our new authorities, the gems, do not of themselves similarly define their own epoch; but we may hope, by testing the forms of the alphabet, and observing closely other significant indications, to fix approximately their place in history.'—'Jour. Roy. As. Sec.,' vol. xiii., p. 374 (1852). See also Westerguard, 'Zendavesta,' i. 19 (Copenhagen, 1854).]

places as monumental, numismatic, and personal records, or the more isolated but carefully-guarded religious services, which, in return, have, in these days, led to the comprehension of one section of the historical epigraphy,' otherwise, to us, so enigmatically endorsed upon the less perishable materials of metal or gems.

As I have ventured to infer a derivation of the more distantly cultivated and more obviously divergent Bactrian alphabet from a parentage in common with or intermediately through the Phœnico-Babylonian, it is demanding but scant faith to ask for a more direct concession of the influence of the latter upon the Parthian or Chaldeo-Pehlvi of almost indigenous site, and which, epochally speaking, is so limitedly varied from its obvious prototype. The Sassanian hereditative, and for a long time

<sup>1</sup> [J. Olshausen, 'Numismatic Chronicle,' vol. xi., p. 62.]

While adverting to Parthian writing, I feel bound to notice a somewhat pretentious article, recently published, which professes to interpret the legends on several classes of sub-Parthian currencies. The paper in question is inserted in the 'Zeitschrift' of the present year (1857), p. 700, under the title of 'Lettre, etc., sur quelques médailles à légendes iraniennes de l'epoque Arsacide, par Comte A. de Gobineau' (Téhéran, le 12 Mars, 1857). As the author seems to have been altogether un-

<sup>&</sup>lt;sup>1</sup> [J. Olshausen, 'Numismatic Chronicle,' vol. xi., p. 62.]
<sup>2</sup> [It may be as well to indicate, as far as possible, the surface over which there is extant evidence of the spread of this character. Inscriptions graven in its letters, in parallel association with the Sassanian Pehlvi, are to be found—1st, at Persepolis; 2nd, at Shahrzor (35° 50′, 44° 24″); and 3rd, at Påf Kúlf, within the Turkish frontier southward of Sulimania, which latter have only recently been discovered by Sir H. Rawlinson, who further states that isolated but earlier varieties of this character are to be found in inscriptions at—1, Amadiah; 2, Holwan; 3, Shimbor, in the Baktiari mountains; and 4, at Bebahan. Or, to state the case generally, the style of writing has an Eastern limit of 150 miles beyond the Tigris. Purther, it is found on certain classes of Imperial Parthian coins ('Vologeses,' iii. etc.), as well as on several varieties of local issues, which up to this time are supposed to be sub-Parthian or Parthe-Persian mintages. The most modern date of its use in inscriptions is to be referred to the reign of Shapar I. (a.n. 240 to 273); indeed, it would appear to have been speedily mintages. The most modern date of its use in inscriptions is to be referred to the reign of Shāpār I. (a.p. 240 to 273); indeed, it would appear to have been speedily superseded by the more readily discriminated Sassanian Pehlvi, in which alone the measuremental records (Ker Porter, vol. ii., pl. lxviii.), and the coin legends of his successors are couched. Of. 'Philosophical Transactions,' vol. xlix., p. 593, pl. xviii. (1756). Pellerin 3me 'Supplément' (1767), pl. i., fig. 13, p. 32. De Sacy, 'Mémoires sur diverses Antiquités de la Perse,' pp. 72, 136, 202, etc. Ouseley, 'Medals and Gems' (London, 1801). 'Mionnet,' v. 686. Millingen's 'Sylloge' (London, 1838), p. 84. Ker Porter, pls. xv., xxii., xxviii., etc. Rich's 'Babylon and Persepolis' (London, 1839), pl. xii. 'Ariana Antiqua,' pl. xv., fig. 23, etc. Rawlinson, 'Memoir on Persian Caneiform Inscriptions, 'Jour. Roy. As. Soc.,' vol. x., p. 118, et seq.; and my Pehlvi Alphabets, 'Jour. Roy. As. Soc.,' vol. xii., p. 262; and vol. xiii., p. 3. Westergaard, 'Bundehesh,' p. 84 (1851). 'Numismatic Chroniele,' vol. xii., p. 63; and Dr. Scott's papers, vols. xviii. tibid. Lindsay, 'View of the Coinage of the Parthians,' (Cork, 1852). 'Haug. Ueber die Pehlewi-Sprache' (Gott. 1854). (Gott. 1854).

contemporary character, is not perhaps so manifest an emanation from the same source, but of the absolute fact there can be no reasonable question, though the ordinary course of mechanical induction leaves this much doubtful, as to whether the Sassanian was derived by independent action from some purely Semitic stock, or whether it was a local improvement upon the intermediate Parthian character of anterior currency and official prominency in their joint monumental association: I myself should certainly prefer the latter inference.

acquainted with De Sacy's elaborate investigations into the alphabet of cognate type, which appears in the numerous bilingual inscriptions of the early Sassanians, I may which appears in the numerous bilingual inscriptions of the early Sassanians, I may be held excused from withholding my general acquisseence in his readings; but, to show how fallacious his system of decipherment has proved, even in his own hands, I may remark that on his coin No. 7 (Numismatic Chronicle, vol. xii., pl. p. 68, figs. 5, 6, 7); he detects the word malks (or melsky, as he transcribes it), in one portion of the legend, while its repetition in the same epigraph altogether escapes him, as equally do the same duplicate titles on his piece No. 1. The interpretation he assigns to the legend on this latter coin I reproduce, as a test of the probable value of the rest of his definitions.

> KYOUVA SETBY VAHYA ARREAK. \*Le Roi de race pure, Arhsak.\*

My own reading of the legend of a similar coin, a facsimile of which is prefixed to the modern transcript, is as follows:

# いいけいいいかいけんけんかんかん

See 'Numismatic Chronicle,' vol. xii., pl. No. 8.

While upon this subject, I may take occasion to refer to my original transcription of the legend on the unique coin of Hormuzd II., brought from Persia by Sir H. C. Rawlinson (Num. Chron.,' vol. xv., p. 180; 'Jour. Roy. As. Sec.,' vol. xiii., p. 379). Dr. Scott, in commenting upon my transliteration as opposed to that of Dr. Mordtmann, while confessing that the shapes of the letters on the coin itself better accord with my version than that of the author just named, accepts the interpretation of the latter, or אוודרכזורי (בני רוֹשָׁאַן) (of) Ormuzd, of the god of light,' in preference to mine, in virtue of its having the advantage of 'being comprehensible!' (Num. Chron.,' vol. xvii., p. 166). As I did not pretend to translate my transcript, which was grounded simply on mechanical data, I could have no objection to so much of condomnstion; but, in truth, my version, with the interpretation I now append, which was grounded simply on mechanical data, I could have no pojection to so much of condomnation; but, in truth, my version, with the interpretation I now append, not only makes very excellent sense, but it has the higher merit of according far more precisely with the typical indication afforded by the monarch's head-dress, which is formed after the conventional model of the Hercules' head, so frequent on the Greek coins, with the covering of a lion's skin. My transliteration ran—

# מזריםן בני אוהרמודי לבאכושאן מלכאן מלכא

The participant—the only doubtful portion of the whole—I understand to mean blion killing. The mixture of Aramaic and Persian in the compound need cause no surprise; neither, I am bound to add, is the orthographical expression of the participle in accord with modern Persian grammar; but these objections are infinitessimal in the interpretation of so irregular and little-known a language as that used in the official records of the early Sassanians.]

The next step in the onward course of the Sassanian alphabet, its merging into the Pehlvi of the early Arabs in Persia, which is nearly literation the same as the Pársis have preserved in Kermán and Gujarát, admits of no possible cavil: how much of the essence of these modified letters the Arabs took into their own superseding Kufic has only been partially investigated, and hitherto insufficiently allowed for; but the number of the normal forms of Pehlvi that have passed into and been reproduced in the so-called Zend alphabet are palpable and manifest on the most cursory inspection; and whatever may be the real antiquity of the language of the Avestá, couched in these letters, there can be but one opinion as to the comparatively recent date at which the characters themselves must have been compounded out of more ancient systems of writing.

I now exhibit the Plate of Comparative Alphabets, which I have prepared in supersession of Prinsep's original plate xi. and to complete the data for testing the rise and progress of the Bactrian alphabet from its Semitic elements, I have appended the two plates of the modifications of that class of literal symbols so obligingly prepared for me by the Duc de Luynes, whose original introductory notice I insert in explanation of the derivation of each.

# ALPHABET PHÉNICIEN (PHÉNICIE PROPRE).

Du temps de Sergon.—Les lettres ¬, ¬, ¬, v, ¬, ¬, », ¬, », sont prises dans les légendes des deux pierres gravées à inscriptions, découvertes par M. Place sons les taureaux du Palais de Sargon.<sup>2</sup> Les autres lettres sont tirées de pierres gravées à

If is a pleasure to me to record the circumstances under which I have to acknowledge M. le Due de Laynes as a coadjutor in this Essay. During a passing visit to Paris, I was made aware that he had most liberally permitted the Numismatic Phoenician type, prepared for the illustration of his own privately circulated works, to be made use of in the printed sale-catalogue of the Baron de Behrs' coins. Encouraged by this concession, I ventured to solicit a similar favor in my own case, so far as a single clucidatory alphabet was concerned. I need not add that this request was readily complied with; but moreover, on my subsequently addressing M. de Luynes, with a view to obtaining a more precise idea of the epoch and localities to which these specimen letters were due, I was surprised and gratified by a promise of a mature and comprehensive review of the entire question of Phoenico-Semitic Alphabets, of which the present materials exhibit the performance.]

2 Ces légendes sont: "PLET Obadbaal et Riphothiah,

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légendes plus ou moins longues, dont plusieurs caractères font partie des légendes sur les deux pierres gravées de M. Place et doivent, par là, se rattacher au même alphabet.

Du temps d' Essumenar. —Alphabet tiré de la longue inscription sur le Surcophage de ce Roi. ['Journal Asiatique,' Avril-Mai, 1856.]

Sous les lers Achaménides.—Cet alphabet est formé des légendes sur les médailles les plus archaïques d'Aradus: Tête virile barbue et laurée. Revers, Navire; au dessus R. D. suivi de lettres numérales variées, N. J. J. D. y. D; les lettres y et v se trouvent sur des pièces d'argent des anciens Rois de Perse représentant un Roi frappant de son poignard un lion dressé devant lui; auprès, v, et au revers: N(i)S(i)B Dy au dessus d'une ville à tous crénelées, &c. Cette pièce est au Musée britannique.

Du temps d'Artaxerzès Longue-main.—Tiré des médailles d'or et d'argent des Rois de Tyr, de Cittium et des Chittim (cf. mes Satrapies).

Sons Artazerzès Mudmon.—Tiré de la numismatique des Rois de Gebal (Byblos) vivant probablement à cette époque (cf. mes Satrapies), et de médailles encore inédites de cette dynastie dans ma collection.

Sous Artaxerxes Ochus.—Tiré des Dariques de mauvais travail frappées sous ce Prince.

Sous Alexandre et les 1ers Sélencides. — Mounaie d'or et d'argent aux types d'Alexandre frappée sous son règne et sous ses premiers successeurs à Joppé, Acé, Aradus, et Thoma.

Sous les Séleucides, de 312 d 145.—Lettres isolées et numérales sur les médailles d'Aradus, de Tyr et de Sidon, frappées sous la domination de ces Princes. Médailles de Tyr frappées sous Antiochus IV. et Demetrius II. et de Laudicée au revers d'Antiochus IV.

Sous la domination Romaine, depuis l'an 145, ... Monnaie en cuivre d'un travail de décadence frappée à Sidon, Tyr, et Marathus.

### DÉRIVATIONS DE L'ALPHABET PHÉNICIEN.

Araméeu.—Manuscrits sur papyrus apportenants au Duc de Blacas. Gesenius paraît croire que ces Manuscrits qui font mention de la captivité d'un peuple en Egypte, sont allusifs à celle des Hébreux et pourraient être contemporains. En tont cas, ils sont très anciens. Cependant, le monument de Carpentras, portant une inscription de même écriture, ne paraît pos remonter à une époque très reculée.

Palmyrénien.—La plupart des Inscriptions Palmyréniennes connues no sont pus plus anciennes que les premiers Empereurs Romains et ne dépassent guères l'époque d'Alexandre Sévère mort en 235 de Jés. Chr. Cependant, il existe une médaille presque archaïque, frappée à Sidé de Pamphylie, dont la légende est évidemment en caractères palmyréniens (voir mes Satrapies).

Sinaîtique cers l'an de J.C. 18.—Cet alphabet est tiré de médailles encore inédites de Rois des environs de la mer rouge et de l'Idumée, dont le principal date ses monnaies de l'an 330 (des Séleucides).

Sinaïtique après l'an de J.C. 18.—Alphabet établi par M. Beer d'après les inscriptions de Gebel Mocatteb. Inser. veteres litt. et ling. hucusq. incogn. ad mont. Sin. magn. num. repert, &c. Lipsiæ, 1840, 4to.

### ECRITURE PUNIQUE.

Avent 396.—Médailles archaïques de Motya, Taits et Aea, frappées en Sicile.

Motya fut détruite en 396.

De 396 ii 332.—Médailles de travail grec avec les types de Cérès et de Proscrpine, adoptés par les Carthaginois seulement depuis 396, époque où ils commencèrent à honorer ces Déesses, et pièces frappées avec le type du droit imité des monnaies d'Alexandre.

Première guerre punique.—Médailles au type de la tête de Cérès et du cheval ou du Pégase, d'un bon travail, et que l'on trouve en grande abondance en or, argent, et cuivre.

Seconde guerre punique.—Les mêmes types ou peu variés, mais d'un travail de décadence et de métaux d'un tître bien plus bas.

Syphax.—Médnilles de brouze de ce Roi et inscription de Marseille exnetement de la même épigraphie que les légendes de Syphax.

July 100,-Monnaies de ce Prince en argent et cuivre.

Empire Romain.—Monnaies puniques d'Espagne et d'Afrique avec des types impériaux en conformes par leur écriture à celles qui partent ces types.

Satrapies de Cilicie et particulièrement ceux de Tarse (cf. mes Satrapies).

Cypre vers 424.—Médailles de Salamine, frappées probablement sous le gouvernement d'Abdemon. La lettre n appartient à une médaille d'Amathus de la même époque.

Abdemon, Roi de Salamine.—Abdemon, Satrape de Cypre, régnait à Salamine.

Une médaille de ce Prince, que je possède, porte seu nom, עברהכן.

Ecriture ornée de l'Inscription de Cittieus, époque invertaine mais probablement reculée.

L'Inscription en question est celle du Musée d'Oxford reproduite par Gesenius dans ses 'Monumenta Phœnicia,' pl. xi., inscr. No. ix., 2 s.

### TYPE TABLE OF SEMITIC ALPHABETS.

I have but little to say in commendation of the subjoined type table of comparative Semitic alphabets, the majority of which consist of such reproductions of the materials of early commentators as the German type-founders chanced to have prepared for the use of printers.

The series Nos. 1, 3, and 4, which are based upon Gesenius' plates, were procured for the casual illustration of the general subject, before I was favoured with the elaborate and more mature facsimiles of the Duc de Luynes, which in a measure supersede the less comprehensive alphabets in type metal, though I have permitted these latter to stand in their introductory capacity, for the purposes of facility of reference. The Kufic literal signs are likewise of but limited palæographic

<sup>+ [</sup>The fourth or Palmyrene series is peculiarly infelicitous in its rendering of the forms of the originals; however, M. de Luynes facsimiles will amend its deficiencies.]

# TABLE OF SEMITIC ALPHABETS.

4 4 (; r, 5 8 49 mm Ġ ¥ H 3 于 ž 7 ٩ 9 4 W W 0 9 2 p July L 00 hunder 4 AHHA L 3000 ۵ 20 1 C a 7 > ۲ ۲ 8 a 8 Ð G £ 9 ደ R Ω D 1. PHEWICIAN FF 99 17 94 3 777 \$18 (3) MA 974 33 1 5 2 1 7 X 0 2 Ω 1 3 E エースト ¥ I ~ I 23 o × r. 5 8 ~ 7 1 5 1 -4 4. PALMYRENE, XNY 33 g п 57 7/ Ą ž 4 Y % PHŒNICIAN. 3. ARAMAIC. MODERN ARABIC. SYRIAC. HEBREW. MODERN 3, SYRIAC. 6. KUFIC.

Printed by Stophen Austin, Hertford,



value, as they do not represent the earliest form of that adaptive alphabet.¹ There are, however, two sets of characters (not of German execution) to which I desire to call attention. No. 2 comprises the Numismatic Phœnician cut for the Duc de Luynes, and imitated principally from the forms of letters prevailing on the coins of Cilicia and Cyprus. The alphabet No. 5 is, likewise, a novelty, for which I am indebted to the Rev. W. Cureton,² who explains its derivation in the following terms:—

'The type was principally copied from MSS, of the 6th century, and represents the earliest form of the character known to us. It is identical with that of the most ancient MS, in the British Museum, date a.p. 411; but the forms of the letters are made a little more carefully than they were written by the person who copied that MS,, and imitate more closely those of some better scribe, although about a century later.'

The alphabet in question claims a double interest, in exemplifying the earliest extant Syriac writing, as well as in its near identity with the Estrangelo graven on the celebrated Nestorian monument of Si gan Fu, dated in the 8th century,<sup>3</sup> while its progress on its Central Asian course, thus clearly marked, illustrates the parentage of the Mongol alphabets, whose derivation from a Syriac source has long been freely conceded.

¹ [A valuable contribution towards the study of the palseography of the Arabs has been furnished by J. C. Lindberg ('Lettre à M. Bröndsted.' Copenhagen, 1830), from whose work I cite the following note on the earlier authorities on the subject:—
L. G. C. Adler. 'Descriptio codicum quorumdam cuficorum in bib. reg. Hauniensi.' Altonse, 1780. Silvestre de Sacy. 'Mémoires sur l'origine et les anciens monumens de la littérature parmi les Arabes.' 'Mémoires sur l'origine et les anciens monumens de la littérature parmi les Arabes.' 'Mém. de l'Académie,' vol. l., p. 247. The same. 'Notices et Extraits,' etc., vol. viii., p. 209; and 'Journal Asiatique,' 1827. M. Kopp. 'Bilder u Schriften der Vorzeit,' li., 287.—To these I may add Marcel's 'Palseographie Arabe,' Paris, 1828. 'Ibn Khallikan,' Orient. Trans. Fund, pp. xv., xvi., etc.; and lastly, I would refer to M. Renan's comprehensive review, p. 320, in his 'Histoire générale des Langues Sémitiques,' 1856. While referring to Kufic writing, I must not omit to call attention to the interesting copper-plate grant to the Christian Church in India—which bears the signatures of attesting witnesses—severally in Kufic, Pehlvi, and Hebrew characters. 'Jour. Roy. As. Soc.,' vol. vii., p. 343. 'Madras Journal of Literature and Science,' vol. xiii. (1845), pl. viii.]

' [Or I should rather say my obligations are due to Mr. Watts, of Crown Court.

<sup>\* [</sup>Or I should rather say my obligations are due to Mr. Watts, of Crown Court, to whom the type properly belongs.]

<sup>&</sup>lt;sup>1</sup> ['La Chine d'Athanase Kirchere.' Amsterdam, 1670.—'Assemani,' iii., 2nd part, p. 738. Rome, 1728.—M. Huc. 'Christianisme en Chine,' p. 48. Paris, 1847.—'Journal of the American Oriental Society,' vol. v., p. 278.—Reinaud, 'Géogr. d'Aboulféda,' p. 365.—Renan, 'Hist. Gén.,' vol. i., p. 268.]

Finally, I have introduced a set of Zend letters, more with the object of completing the series of cognate alphabets, than for any credence I wish to claim for them among the other palæographic memorials of the ancient currency of which we have good and authentic proof; and, for the purposes of direct comparison, I have prefixed to this enlarged alphabet the several original Pehlvi characters upon which the Zend correspondents seem so obviously to have been formed.

### II. ARIAN NOMENCLATURE.

I do not propose to recapitulate the Arian transcriptions of the Greek names; the details of each, together with the variations in the standard orthography, will be found duly marked in the Coin Catalogue, and most of their peculiarities will have already been considered in the determination of the alphabet in whose literal forms they are expressed. The same may be said of the Oriental names, which in process of time superseded the Greek designations, and where the definition must be supposed to be authoritative under its Arian form rather than in the now imitative transcript in Grecian characters. It may, however, be useful to summarize the Arian titles, whether direct translations or local equivalents of the leading idea of titularization adopted from the conquerors, even if it be merely to avoid the tedious repetition of interpretations on the recurrence of each king's little-varied epithets.

- The more common indigenous titles of Maharaj, 'great king,' and its superlative combinations of Rajadhiraj, 'king over kings,' and Rajaraja, 'king of kings,' scarcely require notice.
- The equivalent of the Greek σωτήρ is rendered by the word Tradata, a provincial derivative from ¬1, 'to preserve'; and here, as in all cases, I adhere to the manifest orthography

<sup>&</sup>lt;sup>1</sup> [This Zend type, like the early Syrme just acknowledged, is also the property of Mr. Watts. The very excellent Pehlvi fount, as has been already noticed, belongs to Messes. Harrison and Co., St. Martin's-lane.]

# ZEND ALPHABET.

## VOWELS.

Sновт	Vowels,	Pehlví,	<b>4</b> (l.		3 /.	1 ".	
	**	Zend,	$\mathbf{M}(a)$	$\xi$ $e$ .	s i.	> 1/.	
Lone	Vowels,	Peklví,	w ai.	بة ن <u>ح</u>			
	31	Zend,	wá.	80 i.	9 ú.	ę è.	mo ê.
	n	Zend,	b o.	ψ ó.	em áo.		
			conso	NANTS			
Gurr	URALS,	Pehlví,	9 k.	w hu.		3 9.	
		Zend,	9 k.	os kh.	B 11.	e 9.	294.
PALA	TALS,	Pehlví,	ech.	0000/	0/00	3 j.	
	"	Zend,	p ch.	MREE	7/1	$\mathbf{z}, j$ .	
DENT	ALS,	Pehlví,		لأنوري	示觀	3 d.	
,		Zend,	p 1.	To the	6 1h.	9 d.	odk.
Labi	ALS,	Pehlví,	e p.	- SEE		J b.	
,	,	Zend,	υ p.	1 f.		_ b.	
Sent-	TOWELS,	Pehlvi,	j i or y.		) r.		
	,,	Zend,	20 C	33 med.) y	. 2 r.	6 (>	med.) c.
		Pehlvi,	1 v. or w.		u h.		
	27	Zend,	es w.		w h.		
Sibil	ANTS,	Pehlvi,	.8 دو.		- sh.		5
,	,	Zend,	30 8. (ç.)	rp sh.	. A0 8.	ژ داه	٤ .
NASA	Ls,	Pehlví,	1 n.				€ m.
,,		Zend,	$I^{n}$ .	₩ ñ.	R an.	J. 39.	Ģ m.

<sup>&</sup>lt;sup>1</sup> The definition of the Zend Alphabet is adopted from Spicgel's \*Grammatik der Pärsisprache;\* the Pehlvi series is confined to the older and unpointed forms.



of the original, without attempting to reconcile the deviations from the laws of Sanskrit grammatical construction, or to trace the process of vernacular degradation; it is sufficient to say that, having the Greek counterpart, and ordinarily an appropriate Sanskrit root, we must remain content to take the inflections and orthographical variations the die engravers have left behind them.

- The δίκαιος of the coins is represented by the term Dhamika, or rather Dhramika, from y, 'to hold, to maintain,' whence भπ, 'virtue,' etc.
- 4. The term νίκηφόρος appears under the optional forms of Jayadhara and Jayata, the derivation of which, from ဩ, 'to conquer,' অয়, 'conquest,' is sufficiently obvious.
- The counterpart of divingtos appears in parallel accord as apadiháta,¹ for अप्रतिहत, 'unrepulsed' (from हन, 'to strike or hurt').
- Mahata and Mahataka, of obvious derivation, occur as the representatives of the Greek µeyas.
- 7. The title Pradicha, otherwise Praticha, which stands as the indigenous representative of the Greek ἐπιφᾶνής, may readily be identified as the vernacular form of πίπεπ Pratishthita, 'renowned.'
- The transcripts of the Greek σατράπης and στᾶτηγός seem sufficiently assured, as likewise does the translation of 'AΔΕΛΦΙΔΕΙΙΣ' in the local Brada-putrasa, 'brother's son.'

# III.—THE EPOCHAL AND TERRITORIAL DISTRIBUTION OF THE BACTRIAN MONARCHY.

I have already intimated that I am not in a position, either as regards preparation or present opportunity, to review, with the deliberation the subject demands, the classification of the long list of Bactrian kings, the sole witnesses of whose rule, in the majority of cases, exist in the emanations from their mints

<sup>1 [</sup> On Gondophares' coins, spratikata.]

exhumed from time to time in and around the ancient seats of government.

In other cases credit is claimed for coins under their faculty of illustrating written history: in this instance they comprehend the sole data for history itself; at least, from their records alone must be drawn, with scant exception, all testimony at present available of the survival, re-institution, and extinction of the dominant Hellenic element on the site of Alexander's furthest conquest in the East. In the almost total absence of annals, whether Occidental or Oriental, it is from the legends stamped upon the public money that we must reconstruct the story of the otherwise unrecorded potentates who swayed the destinies of these lands for upwards of two centuries.

For such tales as these medallic memorials may tell, I must refer to the works of those authors who from time to time have treated this section of numismatics in detail; contenting myself, for the present, with reproducing, with but scant comment, the matured results arrived at by each.

<sup>&</sup>lt;sup>1</sup> [ Independent Works.—' Historia regni Gracorum Bactriani, in qua simul Gracearum in India coloniarum vetus memoria explicatur, auctore Theophil. Sigefr. Bayero,' Petropoli, 1738. Mionnet, 'Supplément,' vol. viii. (1837). Lassen, 'Zur Geschichte der Griechischen und Indoskythischen Könige,' Bonn, 1838. 'Coins of Greek, Parthian, and Indo-Scythian Kings of Bactria and the countries on the Indus,' by Dr. C. Grotefend, Hanover, 1840. 'Ariana Antiqua: a descriptive account of the Antiquities and Coins of Afghanistan (with a memoir on the buildings called Topcs,' by C. Masson), H. H. Wilson, London, 1841. 'Historical Results, deducible from recent discoveries in Afghanistan,' by H. T. Prinsep, Esq., London, 1844. 'Indische Alterthumskunde,' von Ch. Lassen, Bonn, 1847.

Colcutta Asiatic Researches.— Description of select coins from originals or drawings in the possession of the Asiatic Society, by H. H. Wilson, Esq., vol. xvii., p. 559

<sup>(1832).</sup>Journal of the Asiatic Society of Bengal.—'Note on Capt. Hay's Bamian Coins,' by H. Torrens, Esq., vol. ix., p. 70. 'Points in the history of the Greek and Indo-Scythian Kings in Bactria, Cabul, and India, as illustrated by decyphering the ancient legends on their coins,' by Christian Lassen, Bonn, 1838, vol. ix., p. 251; continued, pp. 339, 449, 627, 733. 'Notice of some counterfeit Bactrian Coins,' by Captain Alexander Cunningham, vol. ix., p. 393. 'Notes on Captain Hay's Bactrian Coins,' by Capt. A. Cunningham, vol. ix., p. 531. 'Description of, and deductions from, a consideration of some new Bactrian Coins,' by Capt. A. Cunningham, vol. ix., p. 867; note to ditto, p. 1008. 'Second notice of some forged coins of the Bactrians and Indo-Scythians,' by Capt. A. Cunningham, vol. ix., p. 1217. 'A sketch of the second Silver Plate found at Badakshān,' by Capt. A. Cunningham, vol. x., p. 570. 'Second notice of some new Bactrian Coins,' by Capt. A. Cunningham, vol. xi., p.

### No. 1.

### GREEK DYNASTIES .- GENERAL LIST.

### PROF. H. H. WILSON.

							m.c.	r e							B.C
Theodotus I.							256	Philoxenes							130
Theodotus II.							240	Antialkides							135
Euthydemus					2	20-	-190	Archebius					1	25-	-120
Demetrius .							190	Menander		4					126
Eukratides .							181	Apollodotus							110
Heliokles .			+		+	+	147	Diomedes							100
Lysias		,					147	Hermæus	į.						98
Amyntas							135	Aguthokles							135
Agathokleia .								Pantaleon	+:	+	+		-		120
Antimachus .							140	100000000000000000000000000000000000000							

### BARBARIC KINGS.

### SU-HERMEUS, KADAPHES, KADPHISES.

Mayes		*:	.+.	114	.40		er.	Ωe	ŅΨ	100	Azilises	3	1	+		20				æ.	60
Palirisus .	į.	į.				10	V	٧.		80_	Azes .	Z	120	k		+	+				50
Spalyrius					Œ.	6			Ÿ	75	XOTHP	ME	TA	s,	K	ing	of	Ki	igs	+	

130. 'On the Gem and Coins figured in the preceding plate,' by H. Torrens, Esq., B.C.S., vol. xi., p. 137. 'Coins of the Indo-Scythian Princes of Cabul (translations of some uncertain Greek legends),' by H. Torrens, Esq., B.C.S., vol. xx., p. 137. 'Coins of Indian Buddhist Satraps, with Greek inscriptions,' by Major A. Cunningham, vol. xxiii., p. 379.

Transactions of the Royal Asiatic Society of Great Britain and Ireland .- An account of Greek, Parthian, and Hindu medals, found in India,' by Major James

Ted, vol. i., p. 313.

Journal of the Royal Asiatic Society.— Observations on some ancient Indian

Journal of the Royal Asiatic Society.— Description on some ancient Indian Coins in the cabinet of the Royal Asiatic Society,' by Prof. H. H. Wilson, vol. iii.,

Journal Bombay Branch of the Royal Asiatic Society .- Observations on the Bactrian and Mithraic Coins, in the cabinet of the Bombay Branch of the Royal Asiatic Society, by James Bird, Esq., vol. i., p. 293.

Journal des Savants.—M. Racul Rochette, A.D. 1834, pp. 328, 385. Supplé-

Journal des Sassatz.—M. Hacell Rochette, A.B. 1834, pp. 328, 385. Supplement, 1835, pp. 514, 577; note, 640, (Dr. Honigberger's coins). 2mc Supplément, A.B. 1836, February; Allard's (i.e. Ventura's) collection. 3eme Supplément, A.B. 1838, p. 736; M. Court's collection; ditto, A.B. 1839, p. 89, ditto.

Journal Asiatique.—M. E. Jacquet, Feb. 1836, 3éme série, vol. i., p. 122; Sept. 1836, vol. ii., p. 234; Nov. 1837, vol. iv., p. 401; Feb. 1838, vol. v., p. 163; May, 1839, vol. vi. 386

1839, vol. vii., p. 385.

1839, vol. vii., p. 350.
Revue Numismatique, Blois.—' Collection Numismatique du Général Court: Rois de la Bactriane,' par Ad. de Longperier, p. 81 (1839).
Numismatic Journal (London).—' Gracco-Bactrian Coins,' by Professor Wilson, vol. i., p. 144 (1837). 'Proceedings of the Numismatic Society' (London). 'Memoir, by Professor Wilson, on the recently discovered Graco-Bactrian Coins, 14th Dec., 1837.

Numismatic Chronicle. - Major Cunningham, 'Monograms, etc.,' vol. viii., p. 175. W. C. W. Vaux, Esq., on Bactrian Coins, vol. xvi., p. 108.]

Sassanians .

### INDO-PARTHIAN DYNASTY.

Vonones					Kodes	
Undopherres					Miscellaneous Arsacidan	
Gondophares				+	Kings	
Abagasus .					1 000 00 00 00 00 00 00 00 00 00 00 00 0	
		In	D0	-Scythian	PRINCES OF KABUL.	
Kadphises .			1	23.	Ooerki	
Kanaeki					Barrages	

### CONTEMPORARY CLASSIFICATION.

Euthydemus.

Kengrano

Demetrius . . Eukratides. Lysias . . . . Heliokles.

Amyntas . . . Antialkides . . Antimachus . . . . . . Agathokles Agathokleia . . Archebius . . . Philoxenes . . Menander . . Pantaleon

Apollodotus Diomedes

Hermaus

Su-Hermaus (?)

'Ariana Antiqua,' p. 267 (1841).

### No. 2.

### M. DR BARTHOLOMÆI'S LIST.

- Défection de la Bactriane et commencement du règne de Diodote, vers 256 av. J. C.
- Agathoclès succède à son père, vers 240 av. J. C.
   Euthydème s'empare du trône de la Bactriane par le meurtre d'Agathoclès 215 av. J. C.
- Pantaléon se maintient dans le Kaboulistan oriental contre Euthydème jusque, vers 214 av. J. C.
- 5. Guerre d'Euthydème avec Antiochus après 210 av. J. C.
- 6. Traité de paix, conclu avec le Roi de Syrie, vers 206 av. J. C.
- Buthydème fait des conquêtes dans l'Ariane et l'Arachosie, vers 200 av. J.C.
- 8. Demétrius fils d'Euthydème succède à son père, vers 190 J. C.
- Eucratides s'empare de la royauté dans la Bactriane, Demétrius fonde une monarchie dans l'Arachosie et dans les contrées de l'Inde qui avaient été conquises par son père vers 181 av. J. C.
- Eucratides fait pendant plusieures années la guerre à Demétrius et finit par s'emparer de ses états, vers 164 av. J. C.
- 11. Eucratides étend ses conquêtes dans l'Inde, vers 160 av. J. C.
- Meurtre d'Eucratide, par son fils Heliocles, qui s'empare de la couronne en Bactrianne, vers 155 av. J. C.
  - Ici commence le démembrement graduel de la monarchie, et les données historiques semblent nous manquer pour tenter même un ordre chronologique quelconque.
- 13. Antimachus fonde un royaume dans la Drangiane ?
- 14. Antialcides réunit sous sa domination l'Arachosie et la Kaboulistan oriental.

15

Dionysius !

- 15. Ménandre fonde un puissant royaume dans l'Inde.
- 16. Areace VI., Mitridate 1º roi Parthe, envahit la Drangiane, vors 145 nv. J. C.
- Chûte complète de la Monarchie greeque-bactrienne, proprement dite, vers 139
   av. J. C.
   'Köhnes Zeitschrift,' 1843, p. 76.

The subjoined list has been abstracted from Major Cunningham's lithographed table inserted in the eighth volume of the 'Numismatic Chronicle,' 1843. It will be found to enter into an elaborate detail of the epochal and territorial distribution of the various divisions of the Bactrian empire. The assignment of the geographical boundaries is understood to have been primarily based upon the author's interpretations of the mint monograms discovered on the coins of the different kings. It is needless to add that these results must be received with considerable caution, as most of my readers will appreciate the ordinary difficulties environing the resolution of monogrammatic combinations, as well as the obstacles that exist to the application of the preferable readings under even a well-defined system of comparative geography, a department in which we are sadly deficient in regard to the countries in question.

### No. 3.

### MAJOR CUNNINGHAM'S TABLE

- NO. B.C. 1 256 Diodotus I. Baetriana (including Sogdiana, Baetria, and Margiana). 243 2 247 Agathocles Paropamisadæ and Nysa. 3 227 Pantaleon 4 220 Euthydemus-Bactriana, Ariana (including Aria, Drangia, Arachosia, and Paropamisadæ), Nysa, and subsequently Gandharitis, Peukelaotis, and Taxila. Demetrius-ditto, ditto; and, later in his reign, Patalene, Syrastrene, 5 196 6 190 Heliocles-Bactriana and Paropamisadae. 7 190 Antimachus Thoos-Nysa, Gand., Peuk., and Taxila. 8 185 Eueratides-Bactrians, Ariana, besides Patalene, Syrastrene, and Larice, as well as Nysa, Gand., Peuk., and Taxila. 9 173 Antimachus Nikephoros-Nysa, Gand., Peuk., and Taxila, contemporarily with Eucratides' retention of the rest of his dominions, 10 165 Philoxenes-succeeds to Antimachus Nikephoros' kingdom Nicias-ditto, with the exception of Taxila. 11 Apollodotus succeeds Eucratides in Arians, as well as Pata., Syr., Lar. 12 13 Zoilus 14 Diomedes follow Apollodotus in Ariana alone.
- 16 159 Lysias—succeeds these in Parepamisade, and obtains Nicias' dominion of Nysa, Gand., and Peuk.; while Mithridates I. possesses himself of Ariana, having previously gained Margiana from Encretides.

NO.	B.C.	
17		Antialeidas-succeeds to Lysins' kingdom.
18		
19		Archebius follow Antialcidas.
	161-1	40 Menander—reigns in Paropamiaadæ, Nysa, Gand., Peuk., Taxils, Por. Reg., Cath., Patalene, Syr., Lar.
21	135	Strato—succeeds, with the exception of the countries of Pata., Syr., Lar., which fall to Mauas.
22		Hippostratus   follow Strate.
23		1 esephus /
24	126	Hermseus—rules over Parop., Nysa, Gand., Peuk. (The Su-Sakas obtain Aris, Drangia, and Arach., from the Parthians).
25		Mauss-has Taxila, Por. Reg., Cath., Pata., Syr., Lar.
26	105	Kadphises—(Yuchi)—takes possession of Hermson's kingdom, and Taxila from Mauas (Kozola Kadaphes).
27		Vonones
28		Spalygis Paropamisadæ.
29		Spalirises )
30	110	Azas—succeeds Mauas, obtaining also, in 90 n.c., Nysa, Gand., and Peuk.
31	80	Azilisas—succeeds Azas in the three latter, adding Taxila, and the Paro- pamisadae.
32	80	The Soter Megas obtains the dominions of Azas, and subsequently those of Azilisas.
	60	The Yuchi again possess Parop., Nysa, and Tax., etc.
33	26	Gondophares—reigns in Ariana.
34		Abdagases (and Sinnakes or Adinnigaus)—ditto in ditto, less the Parop.
	A.D.	Children A Artist
35	44	Arsnees (Ornospades or Orthomasdes)—ditto, ditto.
36	107	Pakores Monnesses-ditto, ditto (Hiatheleh in Bactriana. [36a Orthagnes.]
	207	Artemon—in Aria, Drangia, Arachosia.
		Sassanians.
		'Numismatic Chronicle,' vol. viii., p. 175 (1843).
		w

### No. 4.

### M. LASSEN'S LIST.

# DIE GRIECHISCH-BAKTRISCHEN UND GRIECHISCH-INDISCHEN KÖNIGE.

### 1. DIE GRIECHISCH-BARTRISCHEN.

```
Diodotus II., vor 250 vor Chr. G.
Diodotus II., seit 237 . . . . . Agathokles, in Badakshan und am obern Indus seit 245.

Euthydemes, unabhängig seit 245;
in Baktrien seit . . . 222; Pantaleon.

Demetries, seit 205; beseigt um 165.

Eukratides, nach 180.

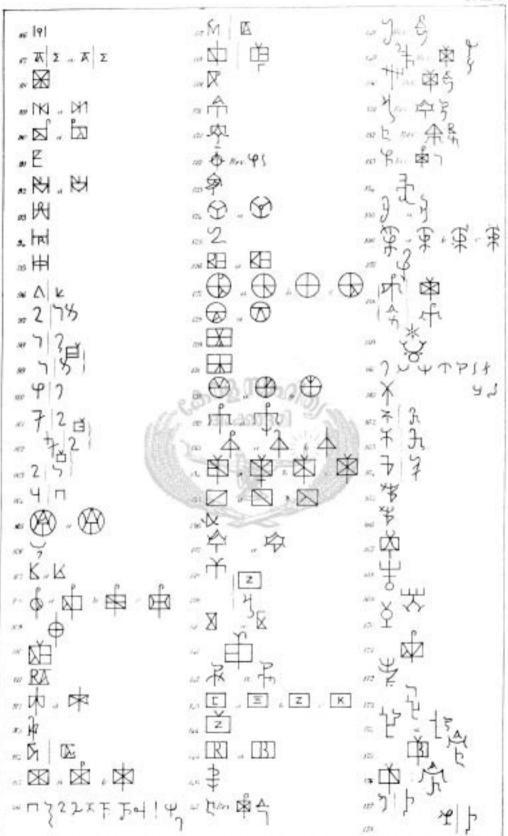
Heliokles, seit 160; Lysias, nach 165; Antimachus, seit 170.

Archebios, 150-140; Antialkides; Philoxenes, um 160.

Amyntas.
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#### 2. DIE GRIEGHISCH-INDISCHEN KÖNIGE.

Apollodotos, nach 160.
Zoilos und Dionysios,
Menandros, seit 144.
Straton, um 124.
Hippostratos, nach 114.
Diomedes, Nikiss, Telephos, zwischen 114 u. 100.
Hermaios, 100—85.

#### No. 5.

# DIE INDOSKYTHISCHEN UND PARTRISCHEN KÖNIGE.

1. CARA-Könter.

Mayes, mach 120 vor Chr G. Azilises, um 100. Azes, seit 95. Spalirises, um 60. Vonones, kurz vor u. nach Chr. G. Spalygis. Yndopherres, um. 90. Abdagsees, von 40 bis 30.

# 2. Jumpent-Königs.

Kadphises I., nach 85 vor Chr. G. Kadaphes, und seine namenlosen Nachfolger etwa bis 60 v. Chr. G. Kadphises II., seit 24 vor Chr. G., bis etwa 1.

#### 3. TURUSHKA-KÖNIGE.

Hushka oder Oerki, von etwa 10 vor bis 5 nach Chr. G. Gushka, bis 10 nach Chr. G. Kanishka, oder Kanerki, bis 40. Balan, bis 45. Oer Kenorano, bis 60.

'Indische Alterthumskunde,' vol. ii., p. xxiv., published 1852.

IV.—As I am compelled to avoid entering upon any such comprehensive revision of the general subject as should justify my attempting to recast the order of succession of the Greek princes of Bactria and Northern India, it becomes necessary that I should adopt, for the moment, some one of the lists above quoted, to serve as a basis for the arrangement of the annexed catalogue. I have therefore selected for the purpose that of Major Cunningham, as being more full in names, more facile of reference, and as grounded upon an examination of by far the most ample series of original specimens.

This outline, it will be seen, was published many years ago, and I have no doubt its author would now be prepared to subject it to extensive modifications. I shall perhaps be pardoned, therefore, for anticipating some of the more obviously needed smendations. In regard to the tables of monograms which accompany this catalogue (pls. xi.c and xi.d), it may be necessary to explain that a degree of difficulty has been experienced in the allocation of the several varieties of these enigmatical compounds. Some examples, that depart but slightly from combinations previously entered, have been inserted in the plates independently in their modified form, in order to avoid the risk of the omission of what might eventually prove to be a separate symbol. And, further, some few monograms have been intentionally repeated, with a view to bring more distinctly together the complete group pertaining to a given monarch.

The perpendicular lines dividing the associate ciphers (60 et seq.) are inserted to mark the position in the field of the piece, in reference

to the main device, occupied by each.

## I. DIODOTUS.

1.—Gold.

OBVERSE :- Head of the king, with fillet, to the right.

REVERSE :- Erect figure of Jupiter, in the act of hurling the thunderbolt; Ægis on the left arm; eagle in front of the left leg; a chaplet in the field; no monogram.

LEGEND :- BAZIAERZ AIGAGTOY.

R. Rochette, 'Jour. des Sav.;' 'Bibliothèque Impériale,' Captain Hay. (This last most perfect coin has, in addition to the other symbols, a spear head in the field under the left arm); 'Ariana Antiqua, 'p. 218; 'Trésor de Numismatique,' pl. lxxii, 4.1

2.—Tetradrachma. Similar types (Cunningham, 'Numismatic Chronicle,' vol. viii., p. 178, and unpublished plates).

Monogram, No. 1, with I. The chaplet is omitted.

\*)-Druchma. Similar types.

M. de Bartholommi, 'Köhnes Zeitschrift,' 1843, p. 75, pl. fig. 1.

Monogram, No. 2, with C.a; chaplet, etc.

Mr. Stokes' and British Museum Coins, Monograms indistinct. Major Cunningham further cites in his table the Monogram No. 2ª from the Coins of Diodotus (' Num. Chron.,' vol. viii., p. 179).

#### II. AGATHOCLES.

Tetradrachma (weight, 4 drachmes 14 grains Fr.)

OBVERSE :- Head, with fillet, to the right. AlonoToT InTHPOI.

REVERSE :- Erect figure of Jupiter, as in Diodotus' coins.

LEGEND :- BAZIAETONTOZ AFAGOKAEGYZ AIKAIGY.

Monogram, No. 3 (with chaplet).

M. de Bartholomæi, 'Köhnes Zeitschrift,' 1843, pl. iii., fig. 2, p. 67. An equally perfect coin of similar types, in the possession of Mr. J. Gibbs, Bombay Civil Service, has the monogram No. 4. The piece in question is stated to weigh 270 grains.

¹ Coins bearing similar devices, from the mint of Antiochus II., may be referred to in pl. ii., fig. 1, p. 25, vol. i. of this work; Burnes's 'Bokhara,' pl. iii., fig. 8; 'Ariana Antiqua,' p. 219; 'Trésor de Numismatique,' lxxii., 3.—Monograms: Mr. Gibbe' coin (Tetrad.) A: (see pl. xlii., fig. 1 of this work); 'Bibliothèque Impériale,' B.; Captain Hay (Drachma) C; Mr. Freres' coin (Drachma) C. a associated with D.

 Tetrndrachma. Plate xiii., fig. 3. (These leading numbers refer, in each case, to the plates inserted in this work.)

OBVERSE :- Head of king.

REVERSE: - Jupiter, with the left hand resting on a spear, and the right holding a figure of Diana Lucifera.

LEGEND: -BAZIAEDZ AFAGOKAEGTZ.

Monogram, No. 5. Mr. Gibbs.

'Ariana Antiqua,' pl. vi., fig. 3; 'Jour. des Sav.,' 1836, pl. ii., fig. 1;
'Trésor de Numismatique,' lxxiv.

b)—Drachma. Similar types.

Monogram, No. 3.

'Jour. des Sav.', June, 1834, pl. fig. 2. 'Grotefend' (1839), p. 29. 'Ariana Antiqua,' pl. vi., fig. 4. 'Bibl. Imp.,' Monogram, No. 5.

3.-Druchma.

OBVERSE:-Head of Bacchus, to the right.

REVERSE :- Panther, to the right, with a bunch of grapes in his fore-paw.

LEGEND :- BAXIAEON AFAGGKAEGYN.

No Monogram.

'Jour. des Sav.', 1834, pl. fig. 1. 'Ariana Antiqua,' pl. vi., fig. 5. 'Trésor de Numismatique,' lxxiv., 2.

4.— Copper. Types as in No. 3, with the exception that the spear which appears doubtfully on the obverse of the former class is here distinct and positive, while, in lieu of the bunch of grapes, a small vine is introduced in front of the panther on the reverse.

Monogram, No. 6. ΑΡαχωσία (\*)

'Arisna Antiqua,' pl. vi., fig. 6. 'Num. Jour.', vol. vii., pl. iii., 30.

Mr. G. H. Freeling, Bengal Civil Service, has a cust (in silver) from an apparently
genuine original of this coinage, which bears the detached letters \$\Phi\$ in place
of a monogram.

5.—□ Copper. Plate xxviii., fig. 9.

OBVERSE :- Panther to the right.

LEGEND .- BANIAERN AFAGOKAECTN.

REVERSE :- Bacchante.

LEGEND, in Indian Pali, NA O + 1 & Agathuklayess.

Ariana Antiqua, pl. vi., figs. 7, 8, 9.; and Jour. des Sav., 1835, pl. i., fig. 1.

Some varieties of these coins display mint marks or letters on the right of the Baschante. The character is usually formed like a modern Hebrew 2 5; it may be either an Arian 7 d or a Pali 1 ss; at times, again, it takes the form of an Arian 7 ts or rs. An analogous piece, in the British Museum, exhibits the Greek letters 2H, on the obverse.

# III. PANTALEON.

1.- O Debased silver (unpublished).

OBVERSE :- Type similar to No. 4. Agathotles.

REVERSE :- Ditto.

LEGEND :- BAXIAEDX HANTAAEONTOS.

No monogram.

Mr. H. Brereton, Bengal Civil Service,

Copper. Pl. xxviii. fig. 8. [Types similar to No. 5. Agathocles.]
 Onyman:—Panther.

LEGEND :- BAZIAEON HANTAAEONTON.

REVERSE :- Bacchante.

LEGEND, in Indian Pali, U.A J & & Pantalevasa.

Monogram:—⊃, ¬, etc. 'Ariana Antiqua,' pl. vi. fig. 11.

#### IV. EUTHYDEMUS.

#### 1.-Gold.

OBVERSE:-Head of king to the right, with fillet.

REVERSE:—Hercules scated on a rock, resting his club on a pile of stones.

LEGEND:—BAZIAEGZ ETSTAHMOT.

Monogram, No. 7, according to 'Ariana Antiqua,' pl. i., fig. 1,; quoted from Pellerin, 'Additions aux Médailles des Rois,' p. 95. The 'Bibl. Imp.' coin, to my perception, has the monogram copied under No. 7 a.

2.—Tetradrachma. Pl. ii., fig. 3.

Onverse : - As in No. 1.

REVERSE:-Hercules, etc., with his club resting on his right knee.

Monograms, Nos. 8, 8s, As, 9.

'Ariana Antiqua,' pl. i., figs. 2, 3, 4. 'Jour. des Sav.,' 1834, pl. fig. 2: 1835, pl. i., fig. 2.

\*)-Drachma, similar types. Capt. Hay. Monogram, 8a.

Variant, pl. xiii. fig. 1. Reverse, type as in gold coin. Monogram, No. 10.

\*Jour. des Sav., 1834, pl. fig. 3; Monogram, No. 11.

Other coins have Monograms, Nos. 12, Ab, Ac, Au and Ad,
'Ariana Antiqua,' pl. xxi. fig. 1, has 12 with Ab.

- \*)—Drachma, similar types. 'Ariana Antiqua,' pl. xxi., fig. 2.
- 3.-Tetrndrachma. Pl. xxxi. 3, and pl. xlii., figs. 2, 3.2

ORVERSE :- Head of King.

REVERSE: - Hercules standing, to the front; head encircled with a chaplet; on the left arm are the club and lion's skin; right hand extended.

Monogram, No. 5. 'Ariana Antiqua,' pl. i., fig. 11. Monogram 5 a.

Variety. Other coins vary the reverse device, inasmuch as the extended right hand holds a second chaplet. British Museum, Monogram, No. 8s (weight, 260.4 gr.) Brereton ditto (weight, 258.5 gr.)

\*)—Drachma, as No. 3 variety. 'Ariana Antiqua,' pl. i., fig. 12; 'Jour. des Sav.,' 1835, pl. i., fig. 3; British Museum, plated coin, Monogram 5?

4. - Didrachma.

OBVERSE: - Laurelled head of Apollo to the left,

REVERSE :- Tripod. R. Rochette, 'Jour. des Sav.,' Dec. 1838, p. 741.

1 [Where the legends are omitted, they are to be understood to be identical with those cited on the latest occasion.]

<sup>2</sup> [I have had the obverses of the two coins, lately acquired by Messes. Frere and Brerston, engraved, for the purpose of enabling numismatists to compare the portraiture, as here rendered, with the style of likeness prevailing on classes 1 and 2, an impression existing among our most practised antiquarians that the contrasting dies represent the busts of two independent monarchs, as opposed to the idea of a likeness of one and the same person at different periods of his life.]

5.- Copper. Pl. xxxii., fig. 4.

Onverse :- Bearded head, to the right.

REVERSE : - Horse, froc.

'Ariana Antiqua,' pl. i., figs. 13, 14, 15.

6.- Copper (small).

Onverse: - Head indistinct.

REVERSE:—Erect figure of Apollo to the left, with arrow in the right and bow in the left hand. "Ariana Antiqua," pl. ii., fig. 1.

7.- Copper.

OBVERSE: - Head as in No. 4.

REVERSE:-Tripod,

Monogram, No. 5a.

Captain Hay; 'Trésor de Numismatique,' lxxii. 11; also 'Köhler,' pl. i. 3.1

#### V. DEMETRIUS.

1.-Tetradrachma. Head of king with fillet, to the right.

REVERSE :- Minerva armed, to the front.

LEGEND :- BAXIAGON AHMHTPIOT.

Monogram, No. 13, with the letter △ above the figure.

'Jour. des Sav.,' 1835 (Hönigherger's coin), vol. i., p. 4, 1835; reengraved in 'Ariana Antiqua,' pl. ii., fig. 3. 'Trés. de Num.,' lxxii. 14.

2,-Tetradrachma.

Ouverse: -Head of king, to the right, with belief fashloned like an elephant's

REVERSE:—Hercules, like No. 3, Euthydemus' device, but his right hand is upraised in the act of placing the chaplet on his brow.

LEGEND ;-BAZIAEGE AHMHTPIOT.

Mr. Gibbs' coin, monogram, No. 5. 'Köhler,' p. 321.

Monogram, No. 8 s. R. Rochette, 'Jour. des. Sav.', 1838, p. 743.

B.M. coins, monograms, Nos. 5 (weight, 263-5 grs.), 8s, and 14 (inferior execution, weight, 236 grs.)

- \*)—Oboli. Plate xiii., fig. 2. Similar devices. 'Ariana Antiqua,' pl. ii., fig. 5. Monogram, 5. M. Raoul Rochette notices a Triobolus of this type, 'Jour. des Sav.', Deux. Supp. 16. 'Trésor Numismatique,' p. 149. Other monograms, 5 b, 6, and 8 s.
- b)—No. 4, pl. ii., 'Ariana Antiqua,' has the neck of the king bare. A second unpublished coin E. I. H. has the monogram No. 15 (OE).

3.- Copper.

OBVERSE :- Head of Hercules.

REVERSE :- Apollo (?)

Monogram, No. 15.

'Ariana Antiqua,' pl. xxi., fig. 3.

<sup>&</sup>lt;sup>1</sup> [I have not been able to obtain a sight of Köhler's work; I quote his coins from Grotefend, 'Die Münzen der Könige von Bactrien,' 1839. The original seems to have appeared under the following title: 'Köhler, Médailles grecques de Rois de la Bactriane, du Bosphore,' etc. Petersbourg, 1822, 8vo. 'Supplément à la suite des Méd. des Rois de la Bactriane,' ibid, 1823.]

4.-Copper.

ORVERSE AS No. 3.

Ruvense:—Hercules; the right arm is upraised towards the head of the figure. Cunningham, 'Jour. As. Soc. Beng.', vol. xi., pl. fig. 1.

5.- Copper.

OBVERSE :- Elephant's head.

REVERSE:-The Caduceus.

'Jour. As. Soc. Beng.', vol. ix., p. 69; and vol. xi., pl. fig. 2.

## VI. HELIOCLES.

1.-Tetradrachma.

OBVERSE :- Head of king to the right.

REVERSE:-Jove, standing to the front, with spear and thunderbolt.

LEGEND: -BAXIAEGX AIKAIOT HAIOKAEGYX.

Grotefend, p. 30, quoting 'Catalogue d'Ennery,' p. 40.1 'Trésor de Numismatique,' lxxiii., 15.

Monogram, No. 16. 'Ari

'Ariana Antiqua,' pl. ii., fig. 6,

British Museum coins, monograms, Nos. 11s, B (weight of piece, 259-6 grs.)

Mr. Gibbe' coin, monogram 17. Mr. Brereton, ditto. Lady Sale, No. 16.

A cert in the recreasion of Mr. Freeling has the letters 775 (No. 19) below the

A cast in the possession of Mr. Freeling has the letters \(\pi\)\(\Gamma\) (No. 19) below the word \(\Delta\) KAIOT on the reverse.

- a).—Drachma. similar types. 'Bibl. Imp.' Monogram, 115.
- 2.-Tetradrachma.

OEVERSE :- Helmeted head,

REVERSE: - Jupiter seated: the right hand holding a small figure of victory, the left resting on a spear.

LEGEND :- BAZIAEAZ AIKAIOT HAIOKAEOUZ.

Capt. Hay.

3 .- O Plated copper (Drachma ?).

OBVERSE:—Helmeted head, closely resembling that of Eukratides, within a marginal border of alternate drops and beads.

REVERSE :- Jove scated.

LEGEND (blundered) :- BANIAEGN AIKAIOT IAIOKAEGTN.

Mr. E. C. Bayley; also, Capt. Hay.

a)—Drachma. Similar types.

Monogram A.

Capt. Hay.

Hemidrachma.

OBVERSE :- Head of king.

LEGEND :- BAZIAEGZ AIKAIOT HAIOKAEGYZ.

REVERSE:-Jove, as above, No. 1.

LEGEND, in Bactrian-Palí or Arian characters, Mcharajasa Dhramikasa Heliyakreyasa.

\* Ariana Antiqua,\* pl. xxi., fig. 8. Monogram X.

The orthography of the name in the Arian varies at times to Helipakresses and Elipakresses; the former occurs on a coin in the E. I. H., with the monogram No. 8s. Other hemidrachmas have monograms No. 20 and 20 with Z.

<sup>1 [ &#</sup>x27;Catalogue des Médailles du Cabinet,' de M. d'Ennery. Paris, 1788.]

5,—□ Copper. Pl. xliii., fig. 7.

OBVERSE :- Head.

REVERSE :- Elephant to the left,1

'Ariana Antiqua,' pl. ii., fig. 7, monogram Z. Other monograms, Nos. Sa. E. I. C. coin, 21. Mr. Frere, monogram No. 22.

These coins also differ occasionally in the expression of the Arian version of the name, exhibiting it as Holiyakreyass and Heliyakrassa.

6.- Copper. Plate xliii., fig. 8. As No. 5, but the elephant on the reverse is to the right.

7.-□ Copper.

OBVERSE :- Elephant, to the right.

REYERSE :- Bull.

Capt. Hay.2

Copper. Plate xxviii., fig. 4. Degraded type.

OBVERSE :- Head.

REVERSE :- Figure as in No. 1. Legends corrupt and imperfect.

9.—Copper. Plate xv., figs. 12, 13, 14. Degraded type.

OBVERSE :- Head.

REVERSE :- Horse, free, to the left. Legends corrupt and imperfect.

## VII. ANTIMACHUS OEOZ.

1.—Tetradrachma.3 (Cast.)

Onvense :- Head with fillet.

LEGEND :- AloAeres MOTHPOX-

REVERSE: - Standing figure of Jupiter, as in the gold coinage of Diodotus

LEGEND :- BAXIAETONTOX ANTIMAXOT GEOT."

Monogram, No. 12.

Capt. Hay, Mr. Brereton has a similar forgery with the same monogram.

2. - Tetradrachma.

OBVERSE:-Head of king, to the right, with Causia.

REVERSE :- Neptune, to the front, with trident and palm-branch.

LEGEND :- BAXIAEGX GEOT ANTIMAXOT.

'Köhler,' i. 10, reproduced by 'Micanet,' sup. viii. 466.

Monogram, No. 23. British Museum coins, monogram No. 8s and 23. Lady Sale and Mr. Brereton, also No. 23.

-)—Drachma. British Museum, menogram No. 23.

The Arian legends, like the Greek, are ordinarily emitted after one insertion; where not otherwise noted, therefore, the succeeding coins are to be understood to bear similar epigraphs.]

<sup>2</sup> [I am indebted to Mr. E. C. Bayley, of the Bengal Civil Service, for most of these notices of Captain W. B. Hay's coins. I myself have seen only the silver pieces of that officer's valuable collection.]

3 [It is needless to say that this important piece, which, though a cast, is evidently taken from a genuine antique, necessitates the promotion of Antimachus Theos to a close proximity, if not to a contemporaneous existence, with the founder of the Bactrian independence. This coin was not known in England when Art. iii., vol. i., went to press.]

 Hemidrachma (31-7 grs.). British Museum coin, monogram No. 9a. A second, monogram No. 23.

Major Cunningham ('Jour. As. Soc. Beng.,' vol. ix., p. 872) describes a 'plated' hemidrachma of Antimachus Theos, with the monogram 'Xo.'

e),-Obolus.

'Ariana Antiqua,' pl. xxi., fig. 12. Monogram 8s.

## VIII. EUCRATIDES.

1.-Tetradrachma. Pl. xlii., fig. 2.

REVERSE .- Bare head of the king, with fillet.

REVERSE: - Apollo, bow in the left, and arrow in the right hand.

LEGEND :- BAZIAEDZ EYKPATIAOT.

'Köhler,' 'Ariana Antiqua,' pl. iii., fig. 4, monogram No. 2a.1

Lady Sale, same monogram. See also 'Jour. des Sav.,' Sept., 1835, i. 5; 'Mionnet,' sup. viii.; British Museum coins, monograms Nos. 10, 24, 25; 'Bib. Imp.,' No. 26; M. le Duc de Luynes, No. 5c.

- \*)—Druchma. Similar types. Pl. xiii. 6. General Fox, monogram 29.
- 2 .- Obolus. Plate xxxii., fig. 10.

Onvense:-Bare head of king.

REVERSE:—Caps and palm-branches of Dioscuri. Same legend as No 1. Monograms, Nos. 8a, 13a, 27, 28, 28a.

3.-Obolus,

Onverse:-Helmeted head of king.

REVERSE :- As in No. 2.

Arisna Antiqua, pl. iii., fig. 5. Gen. Fox, monogram No. 13a. E. I. H., 13a, M, and 19a. British Museum, monog. 12—i.e. N.

4.—Tetradrachma.

OHVERSE:-Bare head of king, to the right, with fillet.

Reverse :- Dioscuri, charging.

British Museum. Monogram 84.

\*)-Drachma. Pl. xiii., fig. 6. Similar types.

'Jour. des Sav.,' 1836, ii., 3. 'Trés. de Num.,' pl. lxxiii. fig. 2. B.I., monogram 11.

Tetradrachma. Pl. xlii, fig. 4, p. 126. (Weight of E. I. H. coin, with suspending loop, 255-7 grs.)

OBVERSE :- Helmeted head of king.

LEGEND :- BAZIAETZ METAZ ETKPATIAHZ.

REVERSE: - Male and female heads, uncovered and unadorned with fillets.

LEGEND :- HAIOKAEOYZ KAI AAOAIKHZ.

Monogram, No. 13a. 'Jour. As. Soc. Beng.,' vol. vii., pl. xxvii., fig. 1. Reengraved in 'Ariana Antiqua,' pl. xxi., fig. 7, from the original coin.

Col. Sykes' east, from a possibly genuine coin of this class, and a second reproduction from the same or a similar original, in the possession of Mr. Brereton, both have the monogram No. 5c.

<sup>1</sup> [Where the monogram facsimiles in the plates differ from the published specimens, it must be understood that my copy has been taken anew from the original piece, and does not follow the engraving, cited for the mere illustration of the numismatic classification.]

6. - Totradrachma. Plate xill., fig. 5. (Weight of selected specimens in the British Museum, 258 and 259 grains.)

OBVERSE: - Helmoted head, to the right.

REVERSE: - Dioscuri, charging.

LEGEND: -BAXIAEGN METAAGY EYRPATIAGY.

Ariana Antiqua, pl. iii., figs. 1, 2, 3. Monograms 13a, 27, 29. British Museum, Monograms, Nos. 5c, 11c, 13a, 29, 30, 31. Lady Sale, No. 28a.

Mr. Bayley. Monogram, W with HT in the field. Capt. Robinson. Monograms 13s 28s. B. I. Monograms, M. 29.

\*Jour. des Sav., 1834, pl. fig. 5 : 1835, pl. i., fig. 6. a) - Drachma. de Num., 1xxiii. 6. British Museum, monogram N. B.I. 286. Hay, 5e,

Tetradrachma.

Onverse: - Helmeted head of the king, to the left, with a portion of the bust displayed; the right arm raised in the act of darting a javelin,

REVERSE : - Dioscuri.

LEGEND :- BAZIAEGE METAAOT ETEPATIAOT.

'Köhler,' i. 8. 'Trés de Num.,' pl. lxxiii , fig. 7. Monogram 55 (?)

8.- Copper.

OBVERSE :- Head of Apollo to the right.

REVERSE :- Horse, five, to the left.

\* Ariana Antiqua, pl. iii., fig. 7. LEGEND: -BAZIAEGZ ETKPATIAGT.

9.— Copper. Pl. xiii., fig. 7, Of similar devices and legends to No. 6.

"Ariana Antiqua," pl. iii., fig. 8, monogram, No. 21. Mr. Bayley,

10.-□ Copper.

OBVERSE :- Helmeted head, to the left, with javelin.

REVERSE :- Dioscuri.

LEGEND: -BANIAEGN METAAGT ETKPATIAGT.

'Köhler.' 'Mionnet,' viii. 470. British Museum, monogram 32.

11.- Copper. Size, 3. British Museum.

OBVERSE :- Helmeted head to the left.

REVESSE :- A single horseman at the charge.

12.—□ Copper. Small coin. Pl. xxxii., fig. 11.

OBVERSE: - Bare head of king to the right.

LEGEND :- BAZIAEGZ METAAOT ETKPATIAOT.

REVERSE :- Caps and palm-leaves of the Dioscuri.

LEGEND IN ARIAN: - Mchdrajasa Eukrátidasa.

'Ariana Antiqua,' pl. iii., fig. 12. 'Trés. de Num.,' lxxiii. 13.

Copper. Pl. xiii., figs. 8-10.
 Ozvzesz:—Helmeted head, as in No. 6.

REVERSE :-- Dioscuri.

LEGEND IN ARIAM :- Maharojasa Elikratidasa.

Monograms, 17a, 21, 27, 28a, 31 with E, 33, 33a, 34, 34a, 35, 355, 36, 37. 38, 39, 41, 43, 44, 45,

Ariana Antiqua, pl. iii., figs. 9, 10. 'Jour. des Sav.,' 1835, pl. i., fig. 7.

14.-□ Copper.

OBVERSE :- Helmeted head to the right.

REVERSE:—Scated figure to the left, with a small elephant at the side (as in Antialkides' coin, No. 1).

Lugger indistinct,

'Ariana Antiqua,' pl. iii., fig. 11.

15.-□ Copper.

OBVERSE:-Helmeted head of king to the left, with javelin.

REVERSE :- A winged figure of Victory to the right, with chaptet and palm branch.

LEGEND defective. 'Ariana Antiqua,' pl. xxi., fig. 5, monogram 1,3a.

16.-□ Copper.

OBVERSE:-Helmeted head of king to the right.

REVERSE :- Victory to the left, extending a chaplet.

ARLAN LEGEND: - (Maharajasa) Rajadirajasa Eukratidasa.

Ariana Antiqua, pl. xxi., fig. 6, and British Museum, monogram 40s. Mr. Bayley, monogram, 40.

Additional monograms of Eucratides, Nos. 8c, 27a, 33b, 42.

# IX. ANTINACHUS NIKHOOPOZ.

1.-Hemidrachma. Plate av., fig. 3.

Onvenan: - Winged figure of Victory, to the left, with palm branch in her right, and fillet in her left hand.

LEGEND :- BAZIAEGZ NIKHOPOT ANTIMAXOT.

REVERSE :- King on horseback, to the right.

ARIAN LEGEND :- Midhirajasa jayidhardsa Antimikhasa.

Ariana Antiqua,' pl. ii., fig. 16.

Prof. Wilson was under the impression that all these coins here the same monograma, Nos. 31s ('Ariana Antiqua,' 274); they are now found to include the symbols classed under the following numbers, 27, 31, 46, and 46s.

2 .- Copper. Pl. xv., 4.

Onvenen: - Demeter, to the front; cornucopia on her left arm. Legend imperfect.

REVERSE:-Winged figure of Victory, to the left.

ARIAN LEGEND: - Máhárajasa . . . Antimakhasa.

'Ariana Antiqua, pl. ii., fig. 16. Monogram X

3.- Copper.

OBVERSE :- The skin of an animal (?)

LEGEND :- BAXIAEGX NIKHOPOT ANTIBEXOU.

REVERSE: - Wreath and palm-branch.

ARIAN LEGEND :- Mdhdrajasa . . . Antimakhasa.

'Ariana Antiqua,' pl. xxi., fig. 11. Monogram 47.

A silver cast of a genuine coin, in the possession of Mr. Bayley, definitely determines the attribution of this piece, contributing the full counterpart names as inserted above. It bears the monogram No. 27.1

<sup>1</sup> [See also Cunningham, 'Jour. As. Soc. Beng.,' April, 1840, p. 392.]

#### X. PHILOXENES.

Didruchma. Plate xv., fig. 1.

Onvense: - Helmeted head of king, to the right.

LEGEND :- BANIAEGN ANIKHTOT GIAGEENOY.

REVERSE: - Horseman with belief, as on the obverse of Antimachus Nikephorus'

ARIAN LEGEND: -Mikhrajasa Apadikatasa Pilasinasa.

'Jour, des, Sav.,' 1836, ii., 5. 'Ariana Antiqua,' pl. ii., fig. 17.

Monogram No. 22a.

\*)—□ Hemidrachma, of similar devices. Monograms No. 48a, with X.

Mr. Bayley. b)—
 Obolus (?). Types and legends as above. The Arian name is written, Phalasinasa, Monogram No. 35e. Captain Robinson.

Mr. Frere has a silver east of an apparently authentic didrachma, which supplies us with a variety of this obverse type. The king's head is here uncovered, On the reverse, traces of the monogram 31s are visible. The Arian transcript of the name commences with the letter Phi.

2.—□ Hemidraehma.

Onverse: - Bare head of king with fillet, to the right. Legend as above.

REVERSE :- Device and legend as in No. 1.

Monogram No. 48s, with Z. 'Aviana Antiqua,' pl. xxi., fig. 13.
Colonel Abbott. Monograms, Nos. 22, 8.

Copper. Plate iii., figs. 6, 7; plate xv., fig. 2.

Onvense: - Demeter, with the ordinary Greek legend.

REVERSE: - Humped bull, with the usual Arian legend; the initial of the name is indifferently expressed by Pi or Phi,

'Jour. des. Sav.,' 1836, il., 6. 'Ariana Antiqua,' pl. ii. fig. 18.

Monogram Nos. 48s, 48s with X on reverse, 48, 49, 50. B.I., 51 (?) with a Bactrian '7 r on reverse, Mr. Brereton, Monograms 22a, with an Arian v on reverse, 48s and 48b, with ≥ on reverse.

4.-□ Copper.

OBVERSE: - Crowned figure, with a long spear.

LEGEND: -BANIAEGN ANIKHTOT PLACEENOT.

REVERSE: - A figure of Victory.

Captain Hay.

# Xa. Artemidorus.

1.—Hemidrachma.

2.- Copper.

OBVERSE: - Erect figure, with the right arm upraised.

LEGEND: - ΒΑΣΙΛΕΩΣ ΑΝΙκητου αρτεΜΙΔΩΡου.

Reverse: - Bull, as in Philoxenes' copper coins.

Abian Legend :- (M) aharojasa Apadihito(sa A) ti(midarusa).

Mr. Bayley.

These legends have been completed from a more perfect coin figured and assigned by Major Cunningham ('Jour. As. Soc. Beng.,' 1854, p. 668).

1 [Mr. Brereton deposes to the discovery of a coin of this description, which has passed from his own possession to that of Major Cunningham. He is under the im-pression that the types are—Obverse: King's head. Reverse: Minerva Promachos.] I conclude that this Artemidorus is the monarch styled Artemon in Major Cunningham's list above cited; but if so, the style and fabric of his coinage must very materially alter his assumed date and position in the general list as determined by that numismatist.

#### XI. NICIAS.

1.- Copper. Plate xlii., fig. 5.

OBVERSE: - Head of king, to the right.

LEGEND :- BACIAEWE CLITHPOC NIKIOW.

REVERSE: - Horseman, as in No. 1, Philoxenes.

ARIAN LEGEND: - Miharajasa Tradatasa . . KIASA.

Colonel T. Bush, See also Cunningham, 'Jour. As. Soc. Beng.,' vol. xi., p. 136.

#### XII. APOLLODOTUS.

1. - Hemidrachma. Plate iii., fig. 4; also pl. xiv., fig. 4.

OBVERSE :- Head of king,

LEGEND :- ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΚΑΙ ΦΙΛΟΠΑΤΟΡΟΣ ΑΠΟΛΛΟΔΟΤΟΥ.

REVERSE:-Thessalian Minerva to the left.

ARIAN LEGEND : - Miliarajasa Tradatasa Apaladatasa.

Monograms, Nos. 38a, 38b, 51, 51a, 51b, 52, 53.

'Ariana Antiqua,' pl. iv., fig. 13.

2.- Hemidrachma. Plate xiv., fig. 5.

OBVERSE:-Elephant.

LEGEND :- BANIAEGN MOTHPON AGGAAGAGTOY.

REVESSE :- Humped bull.

Legend as in No. 1. 'Ariana Antiqua,' pl. iv., fig. 14. Monograms 225, and the entire suite, together with the combinations indi-

eated under each number, from 54 to 59, both inclusive.

Hemidrachma. Types and legends as No. 2.

'Ariana Antiqua,' pl. iv., fig. 15.

<sup>1</sup> [The Arian orthography of the name of Apollodotus varies considerably in the different specimens of his extensive mintages. I notice in some instances a dot at the foot of the initial a, which elsewhere constitutes the sign of the long sound of that vowel. This is the solitary occasion upon which I have observed its use in defining more precisely the power of the ordinary ? initial. And, however little, to our ideas, the exact definition of the phonetic elements of the name may require the hard a in this place, we can scarcely understand the sign as purporting anything else, especially when we observe the lax method of insertion or omission of the same quantitive mark in other words. The antepenultimate d is used indifferently in its simple form, or with the additional horizontal foot stroke, the precise import of which is yet undetermined; and, finally, the d occurs in its normal shape, with the dot of a following hard a. The penultimate is also subject to modification, usually appearing under the form of the proper ? = t, but at times bearing the foot stroke ordinarily reserved to distinguish the ? = d, of assimilate outline; but to show the irregularities practised in this respect, this extraneous mark is added to the t in the name, while on the name coin the special definition is rightly reserved to discriminate the ? = d from the ? = t in Tradaras. It must be added, however, that in some instances the superfluous foot stroke, in the penultimate of apaladarasa takes the form of an equally needless hard a modial.]

4 .- Copper. Small coin.

Onverse: - Figure of Apollo, with bow and arrow, to the right.

Legend as in No. 1.

REVERSE: - Tripod. Legend as usual. Monogram, No. 38s.

Captain Robinson. Mr. Brerston, monogram 37 (?)

Copper. Large coin. Plate xiv., fig. 6.

OBVERSE :- Apollo, with arrow, to the right. Legend as in No. 2.

REVERSE: - Tripod. Legend as in No. 1.

'Ariana Antiqua,' pl. iv., fig. 16. 'Jour. des Sav.,' 1834, pl. fig. 6.

Variant. O Copper. Coin of inferior execution. Legends arranged on three sides of a square, instead of in the usual marginal circle.

Bactrian monogram, gi, with d or s.

Cunningham, 'Jour. As. Soc. Beng.,' vol. ix., p. 867.

 Copper. Similar devices and legends to No. 5. Monograms 63, 64.

7.-□ Copper. Plate xiv., fig. 7.

OBVERSE:—Apollo to the front, with the bow in the left and the arrow in the right hand. Legend as usual.

REVERSE:—Tripod. Legend as usual. \*Jour. des Sav.,' 1835, i. 7.

Variants. Small coin. Pl. xiv., fig. 8; also 'Ariana Antiqua,' pl. iv. figs.

17, 18, and small coin No. 19.

Monograms Nos. 8, 8s, 21, 52s, 57, and the entire suite 65-75.

8.-□ Copper. Middle size.

OBVERSE:—'Pigure of Apollo standing to the left, clothed in the anaxyris, with chlamys behind, a quiver at his back; an arrow in his right hand, his left resting on his bow; inclosed in a frame of oblong globules, BANIAEGN BA [?] . . . AHOAAGAGTOT.'

REVERSE:-'Tripod; in the field, a symbol which seems to be a military ensign.'

Arianian inscription imperfect [Apaladataea].

'Ariana Antiqua,' 291, quoting 'Jour. des Sav.,' Doc. 1838, p. 752. B. I. Monogram 385. Small coin, 38s. Col. Bush. Arian Monogram, No. 76.

9.- Copper. Small coin. Plate alii., fig. 6. Unique.

OBVESSE .- Apollo as in No. 8. Legend altogether wanting.

REVERSE :- Symbol figured in the plate.

ARIAN LEGRND :- Maharajasa Tradatasa Apaladatasa. Col. T. Bush.

10.-□ Copper. Small coin.

OBVERSE :- Bull.

REVERSE: -Tripod, surrounded by a bossed margin. No Legends. B.I.

11.—□ Copper (middle size), indifferent execution.

OBVERSE :- Apollo (?) seated, to the right, a bow in left hand.

LEGEND -BAXIAEGX ZOTHPOX . . . . . OAOTOT.

Exverse: Tripod, within a frame. Legend imperfect, . . . paladatara (?).

Monogram, No. 77. Mr. E. C. Bayley.

#### XIII. Zoilus.

1. - Hemidrachma-

OBVERSE: - Head of king, to the right, with fillet.

LEGEND :- BAZIAEGZ AIKAIGT ZGIAGT.

REVERSE: - Hercules, as in Demetrius' coins, but the right hand holding the chaplet is not upraised.

ARIAN LEGEND: - Micharojasa Dhramikasa Jhailasa.

Monogram, No. 30.

Ludy Headfort, No. 31. Captain Robinson, No. 46. Colonel Abbott, No. 78. Mr. Bayley, No. 79.

 Hemidrachma.<sup>1</sup> These coins have a great similitude, in their die execution, to the small Philopator coins of Apollodotus.

OBVERSE: - As No. 1.

LEGEND :- BAXIAEDX XOTHPOX ZGIAGT.

REVERSE :- Thessalian Minerva.

Arian Legend: —Máhárajasa Tradatasa Jhollasa. Monogram No. 60.

Colonel Abbott. Mr. Bayley, No. 80.

3.- Copper.

ORVERSE :- Head of Hercules covered with the lion's skin, to the right.

LEGEND :- BANIAEGN AIKAIOT ZOIAOT.

REVERSE :- Club, with bow in its case, surrounded by a chaplet,

Anian Luurnd: - Mohdrajasa Dhramikasa Jheilasa.

Monogram No. 79.

Lady Headfort.

4.— Copper. Similar types to the Apollodotüs cein, No. 5, with the addition of a small elephant at the back of the figure, in the field of the obverse. Legends as in No. 2, but the Greek epigraph is less correctly rendered. Monograms Nos. 81, 82, 83.

Copper (small coin).

Onverse:-Elephant, to the right. Epigraph illegible.

REVERSE :- Tripod.

ARIAN LEGEND: - Mákárajasa Tradatasa Jhoilasa, Arian Monograms, dhi, Bh, and a with t.

Colonel Bush.

#### XIV. DIOMEDES.

1.-□ Copper. Plate xxviii., fig. 3.

Onvense: - Dioscuri standing, to the front.

LEGEND :- BANIAEGN ZOTHPON AIGMHAGY.

Reverse. Arian Legend:—Maharajasa Tradatasa Diyamedasa.

Monograms Nos. 31, 31 with Z. Mr. Brereton. 48s with Z.

'Ariana Antiqua,' pl. v., fig. 1.

Major Cunningham has published a degraded type of this ss, which he supposes to have formed part of 'a coinage (that) was re-issued an haps imitated by the native chiefs in their own names." 'Jour. As. Soc. Beng.,' (1904) p. 692, and pl. xxxv., flg. 11.]

#### XV. DIONYSIUS.

 Hemidrachma (of inferior execution, similar in its aspect to the Philopater coins of Apollodotus).

OBVERSE :- Head with fillet, to the right.

LEGEND :- BARIAEGR ROTHPOR AMONTZIOT.

REVERSE: -Thessalian Minerva.

ARIAN LEGEND :- Maharajasa Tradatasa Dianisiyasa.

Monogram (as in Apolledotus' coins), No. 60, standard type. Col. Abbott.

A second specimen gives the Z in the name more after the form of a proper sigms. The outline of the Ni, in the Arian legend, is also modified in the duplicate coin, which, however, bears the same monogram.

2.- Copper.

Onvense: - Apollo, to the right, as in Apollodotus' coins.

LEGEND :- BAXIAEGE EGTHPOE AGONTEGT.

REVERSE: - Tripod. Arian Legend imperfect.

Monogram No. 84, consisting of Arian letters, Sh and A. B.L., mon. 85, British Museum. 'Num. Chron.,' xvi., plate p. 108, fig. 5,

3.- Copper. Plate xlii., fig. 7. Unique.

OBVERSE :- As in No. 8, Apollodotus. No legend.

REVERSE : - Device, as represented in the plate.

ARIAN LEGEND: - Miharojasa Tradatasa Diyanisiyasa.

Colonel Bush.

#### XVI. LYSIAS.

1,-Hemidrachma. Plate xliii., fig. 4.

OBVERSE: - Head of king, with helmet in the shape of an elephant's head: similar to the Demetrius' type.

LEGEND :- BAXIAEDS ANIKHTOY ATXIOY.

REVERSE: - Hercules standing, to the front, as in the Demetrins' prototype,

ARIAN LEGEND: - Middenjasa Apadihitasa Lysikasa.

'Ariana Antiqua,' pl. ii., fig. 9. Monogram 86. 'Ariana Antiqua,' pl. xxi., fig. 9. Monogram 87. B.I., monogram 85. Colonel Abbott. Monograms 84, 86, 87.

#### 2. - Hemidrachma.

Onverse :- Head of the king, with the ordinary helmet.

REVERSE: —Hercules, as above. The legend varies in the Arian definition of the name, which at times exhibits the initial vowel a, and at others the letter k, as the penultimate.

The seven specimens of this mintage that I have had an opportunity of examining all have the monogram No. 86, 'Num. Chron.,' xvi., plate p. 108, fig. 1.

Copper. Plate xiv., fig. 12.

OBVERSE: -Bast of king, to the right, head uncovered, with a club resting on the shoulder.

REVERSE:—Elephant, to the right, as in Heliocles' coins. Legend as above, the name being usually spelt with a k.

Ariana Antiqua, 'pl. ii., fig. 10. 'Num. Jour.,' vii., pl. ii., 22.
Monograms Nos. 8s, 22, 8ss.

4.- O Copper.

OBVERSE :- Bust of the king, as in No. 3.

REVERSE :- Elephant, to the right. (Lisiasa.)

Monogram No. 24s.

Colonel Bosh.

#### LYSIAS AND ANTIALKIDES.

1. -□ Copper.

OBVERSE :- Bare head of king, to the right,

LEGEND :- BANIARCE ANIKHTOY ATRIOT.

REVERSE: - Caps and palm-branches of the Dioscuri.

ARIAN LEGEND: - Maharajasa Jayadharasa Antialiridasa.

Captain Hay.

#### XVII. ANTIALRIDES.

1. - Tetradrachma.

OBVERSE :- Bare head of king.

LEGEND :- BANIARON NIKHOOPOT ANTIAAKIAOT.

REVERSE:- Jove enthroned, with a small figure of Victory in his right hand; minute elephant in front, etc.

Arian Lebend: - Mahdrajasa Jayadharasa Antialikidasa.

Monogram No. 86.

Colonel Abbott.

\*).-Hemidrachma. Similar types. Monograms No. 85, 22, 86. 'Ariana Antiqua,' pl. ii., fig. 12.

2. - Drachina.

OBVERSE:-Head of king, with Causia,

REVERSE: - As in No. 1.

Monogram No. 31. B.I.

\*).-Hemidrachma. Plate xxviii., fig. 2.

In some specimens the small elephant faces the seated figure.

Monograms Nos. 85, 22, 31, 86,

'Ariana Antiqua,' pl. ii., fig. 11.

3. - Hemidrachma.

OBVERSE :- Head, with the ordinary crested helmet.

REVERSE: - Device as usual.

Monograms 8b, 86.

'Ariana Antiqua,' No. 3, p. 277.

4.- Copper.

Onverse: - Bust, with uncovered head. The right hand grasps the thunderbolt.1 REVERSE .- Caps and palms of the Dioscuri.

Monograms 8, 31, 86, 87.

'Ariana Antiqua,' No 6, p. 279.

5.—□ Copper. Plate xiv., figs. 9, 10, 11.

Similar devices.

These two classes of coins vary occasionally in the subordinate typical details,2 and the Arian definition of the name is irregular in the general series, in the interchange of the dental and cerebral d, as the penultimate consonant. Monograms, Nos. 8a, 22, 30 (?), 49a, 87, 87a.

1 [Major Cunningham supposes this to be the head of 'Jupiter Nicephorus.' 'Jour. As. Soc. Beng.,' vol. ix., p. 874.]

2 [Ex. Gr., 'Num. Chron.,' vii., pl. ii., fig. 21.]

## XVIII. AMYNTAS.

Didrachma. Much damaged. (Weight, 128 grs.)

Onverse :- Helmeted head, to the right.

LEGEND: - BAZIAEGZ NIKATOPOZ AMYNTOT.

REVERSE:-Thessalian Minerva, to the left.

ARIAN LEGEND: - Midhirajasa Jayadharasa Amitasa.

British Museum. Monogram No. 20s.

'Num. Chron.,' xvi., plate p. 108, fig. 2.

2. -□ Copper. Plate xxxii., fig. 1.

OBVERSE: - Head of king, to the right.

REVERSE: - Minerva armed, to the left.

Monogram No. 88.

'Ariana Antiqua,' pl. ii., fig. 14.

#### XIX. ARCHEBIUS.

Tetradrachma.

OBVERSE: - Bare head.

LEGEND: - BANIARGY AIKAIOT NIKHOOPOT APXEBIOT.

REVERSE: - Jupiter standing to the front, with spear and thunderbolt.

ARIAN LEGEND: - Mahdrajasa Dhramikasa Joyadharasa Arkhabiyasa. Monogram No. 89. Colonel Abbott.1

\*) .- Hemidrachma. Plate xxviii., fig. 1.

Similar types and legends.

'Ariana Antiqua,' pl. ii., fig. 8. Monogram No. 85.

2. - Tetradrachma.

OBVERSE: - Helmeted head.

REVERSE: - As No. 1.

Monogram No. 20a.

Colonel Abbott.

3. - Hemidrachma.

Onvense: - Bast of the king with bare head, to the left, a javelin in the right hand, as in one of the common classes of Menander's coins (No. 2.)

REVERSE: - Jove (Neptune?) as above.

Monograms, No. 8s with 90.

'Ariana Antiqua,' pl. xxi., fig. 10.

4.- Copper.

OBVERSE :- Victory, to the right, extending a chaplet.

REVERSE : - An owl. Monogram 89.

R. Rochette, 'Jour. des Sav.,' 1839, p. 104. 'Ariana Antiqua,' p. 280,

 Copper. Similar devices. British Museum monograms, Nos. 89 and 89a. 'Num. Chron.,' vol. xvi., pl. p. 108, fig. 3.

<sup>1</sup> [I regret to say that my available notes on the typical details of Colonel Abbott's coins are very imperfect. I was greatly pressed for time on the only opportunity I had of inspecting his rich and varied collection; and, at the moment, entertained no design of publishing the result of my scrutiny; hence my memoranda refer to doubtful and difficult readings, special coincidences of design, and monogrammatic data, rather than to the die specifications ordinarily demanded by exact numismatic science. Further, I have to note, that my compulsory haste denied me even a bare sight of the copper series of a cabinet whose silver specimens promised so much: and, indeed, whose contents in that metal, whether in research to discretion of selection or indeed, whose contents in that metal, whether in regard to discretion of selection or perfection of preservation, are unequalled by any public or private collection I have hitherto examined.]

#### XX. MENANDER.

1.-Didrachma, (E. I. C. coin. Weight, 151-0 grs.)

OBVERSE :- Bare head of king, to the right.

LEGEND :- BAZIAEGZ ZOTHPOZ MENANAPOY.

REVERSE: - Thessalian Minerva, to the left.

ARIAN LEGEND:—Máhárajasa Tradatasa Menadrása. Monograms, ₹ and 30. Mr. Brereton, monogram, 88.

'Ariana Antiqua,' pl. iii., fig. 13.

\*)—Hemidrachma. Plate iii., fig. 5. Same types. Monograms, 18a, 18 associated with 93 on the same field, 22c, 31, 46a repeated on the same coin, 79, 86 repeated, 86 with Γ, E, and Σ, severally associated on the same field, 91, 92, 93, 94, 95.

Ariana Antiqua,' pl. iii., fig. 14.

2.-Didrachma (cast). British Museum.

OBVERSE: —Bare head of king, to the left; the right hand grasps a javelin.

REVERSE: —Minerva to the left. Monogram 27.

- \*)-Hemidrachma. Same types. Monograms, 85, 22, 27, 31, 46, 46s, 86 with 2.
- b)—Hemidrachma. Pl. xiv., fig. 1. Similar devices, but Minorva faces to the right, and the legends are arranged in one continuous circular scroll. Monograms, 27, 31s. 46.
- Didrachma.

Onverse: - Head of king with helmet, to the right.

REVERSE :- Minerya.

Lady Headfort.

- a)—Hemidrachma. Monograms, 85, 22, 22c, 27, 31, 46s repeated, 86, with 2, 91.
  'Ariana Antiqua,' pl. iii., fig. 16.
- 4. Hemidrachma.

Onvense:-Head of king, to the left, with helmet and javelin.

Ruyman: - Minerva.

'Ariana Antiqua,' pl. iv., fig. 2.

Hemidrachma.

OBVERSE :- Helmeted head, as in No. 3.

REVERSE: - An owl. Monograms, 27, 31.

Copper. Large coin. Weight, 550 of grains.

OBVERSE:-Helmeted head of king, to the right.

REVERSE:-Horse, free. Monogram, No. 30 (?).

Mr. Brereton.

7.- Copper. Weight, 316 grains.

OBVERSE: -Bull's head, to the front.

REVERSE: -Tripod.

Monograms, 8a; another coin (in weight, 228 grs.), 8a; a third, No. 31a, with an Arian m in the field.

Mr. Brereton.

8 .-- Copper. Plate xxxii., fig. 8. Weight, 342 grains.

OBVERSE :- Bare head, to the right.

REVERSE: - A dolphin. Monogram 30, with H on the field.

'Arinna Antiqua,' pl. iv., fig. 3.

Mr. Bayley.

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9. - Copper.
    ORVERSE: - Bare head, to the left, with javelin, as in No. 2.
    REVERSE: - Minerva, to the right.
                                         Monograms, 27, 31, 71.
                                                  'Ariana Antiqua,' pl. iv., fig. 7.
10.- Copper. Plate xiv., fig. 3.
    OBVERSE: - Helmeted head, to the right.
    REVERSE:-Wingod figure of Victory, to the right, with pelm-branch and
                               Monograms, 27, 31, 46, 71, 93.
                 wreath.
                                               'Ariana Antiqua,' pl. iv., figs. 5, 6.
  a)- Copper.
    REVERSE : - Victory, to the left.
         Monograms, 31s, with B. Another coin has B alone.
                                                  · Ariana Antiqua,' pl. iv., fig. 4.
   There are other subordinate varieties of these coins, see 'Ariana Antiqua,' p. 285.

 11.-□ Copper. Plate xxxii., fig. 6.

    OBVERSE :- Helmeted head, to the right.
     REVERSE: - Owl.
                                                  Ariana Antiqua, pl. iv., fig. 8.
12. - Copper. Plate xxxii., fig. 5.
     Onvense :- Helmeted head, to the right.
     REVERSE: - Shield of Minerva. Monograms, M (?), 46, 46a.
13 - Copper. Plate xxxii., fig. 9. "Ariana Antiqua," pl. iv., fig. 12.
     OBVERSE :- Boar's head.
     REVERSE: - Palm branch.
                                      Monogram, H.
                                                  'Ariana Antiqua,' pl. iv., fig. 9.
14.- □ Copper. Plate xiv., fig. 2.
     OBVERSE: - Elephant's head.
     REVERSE:-Club of Hercules.
         Monograms, 27, associated in the several instances with the isolated letters
                A A; 31, ditto, A A. Colonel Bush, Arian monogram, Son.
                                                 'Ariana Antiqua,' pl. iv., fig. 10.
15.- □ Copper. Plate xxxii., fig. 7.
     OBVERSE: - Wheel.
     REVERSE :- Club.
                                                ' Ariana Antiqua,' pl. iv., fig. 11,
16.-□ Copper.
     OBVERSE.-Minerva to the left, with a spear resting on her left arm-shield in
                  front of the knee-right hand extended.
         LEGEND: - BAZIAEOZ AIKAIOT MENANAPOY.
     REVERSE :- Indian lion, to the left.
         ARIAN LEGEND : - Mahdrajasa Dhramikasa Menandrasa. British Museum.
            Quoted also by Wilson, 'Ariana Antiqua,' p. 217, from an imperfect coin
                  described by M. R. Rochette, 'Jour. des Sav.,' Dec. 1838, p. 751.
17.-□ Copper.
     OBVERSE :- Elephant, to the left.
         Legend imperfect, but exhibiting traces of the name of Menander :-
              βασιΛΕΩΣ ΣΩΤΗΡΟΣ μΕΝανδρου.
     Revesse :- An ankus (or elephant-goad).
         Arian Legend imperfect: -[Mihdra]jasa Trada[tass] . . . .
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Monogram, No. 96.

#### XXI. STRATO.

Didrachma. (Cast).

ORVERSE :- Helmeted head of the king, to the right.

LEGEND :- βασιλεώΣ ΕΠΙΦΑΝΟΥΣ ΣΩΤΗΡΟΣ στρΑΤΩΝΟΣ.

REVERSE: - Thessalian Minerva, to the left,

Arian Legend incomplete: - . . . . Pratichaea Tradatesa Stratasa.

Monogram, 20s.

Capt. Hay

2. - Hemidrachma.

OBVERSE :- Bare head, to the right.

LEGEND :- ΒΑΣΙΛΕΩΣ ΕΠΙΦΑΝΟΎΣ ΣΩΤΗΡΟΣ ΣΤΡΑΤΩΝΟΣ.

REVERSE: -- Minerva.

Arian Levend: - Middrejasa Pratichasa Tradictasa Stratasa.

Two specimens. British Museum. Monogram, No. 8a.

3.- Copper.

OBVERSE: - Apollo, as in Apollodotus' coin, No. 7.

REVERSE: - Tripod.

E. I. H., monogram, No. 8a.

4 - Copper.

Onverse: - King's bust, with club resting on his right shoulder.

LEGEND :- BANIAEGN NOTHPON NTPATONON.

REVERSE :- Victory.

ARIAN LEGEND : - Mahdrojasa Tradatasa Stratasa.

Monograms, No. 22s (?), 22s.

Mr. Bayley.

5.- Copper.

OBVERSE: - Type as in No. 4.

LEGEND :- BIZIAEGE ZOTHPOZ AIKAIOT ETPATONOZ.

REVERSE: - Type as in No. 4.

ARIAN LEGEND: - Mcharajesa Tradatasa Dhramikasa Stratasa.

Monogram No. 22c. British Musuem. Other monograms, Nos. 22 and 22b.

6. - O Copper.

OBVERSE:- Bare head of king to the right, as in the silver hemidrachmas.

LEGEND, imperfect :- BAZIAEur emparour sweeper ZTPATONOZ.

REVERSE :- Victory with (palm branch ? and) chaplet, to the right.

ARIAN LEGENU .- Maharajasa Pradichasa (Tradata)sa Stratasa.

Monogram 108a. ? Colonel T. Bush,

#### XXI<sup>a</sup>. AGATHOCLEIA

(WIFE OF STRATO).

1.- Copper. Plate xxxii., fig. 2.

Onvense: - Female head, helmeted.

LEGEND :- BAXIAIXXAX ΘΕΟΤΡΟΠΟΥ ΑΓΑΘΟΚΑΕΙΑΧ.

REVERSE :- Horoules with club, scated.

ARIAN LEGEND : - Maharajasa Tradatasa Dhramikasa Stratasa.

Monogram No. 225. Mr. Bayley,

'Ariana Antiqua,' pl. vi., fig. 10.

I notice in this place, irrespective of the order of time, a series of debased derivatives from the normal type of Strato's hemidrachmas (No. 2 suprai), which are peculiarly identified with the original mintage, not only in obvious imitation, but in the progressive degradation of certain associate pieces bearing that monarch's name, which have been found in company with the only considerable heard of these coins that has as yet been discovered.1

The serial class is remarkable in that, while continuing the same standard devices as the prototype, it eventually lowers the title of Mahdraja, on the reverse, into that of Satrap; and it is further interesting in the exemplification of the speedy obscuration of the Greek legends, while the Arian writing remains well-defined and intelligible, as in the parallel instance of the money of the Sah kings, where the local Pall appears in the highest perfection in the presence of the meaningless repetition of Greek outlines on the obverse. In its local aspect also, this particular hoard is instructive, as, although solitary specimens of these and kindred issues may have found their way to other parts of the country, yet the collection of so many successional coins, unmixed with foreign currencies, would seem to indicate an ordinary accumulation of every-day life, either made on the spot or gathered from the circulating medium of no remote locality.

Major Cunningham, in a paper in the 'Journal of the As. Soc. Beng.' (1854, p. 679), with persevering assiduity, endeavours to reconcile the degraded Greek legends with the indigenous inscriptions on the reverse, and essays to discover owners for the names - which read but vaguely even in their Arian form - amid the Hindû dynasties of Hustinapur and Dehli,2

Passing over the progressive steps of barbarization in the jumbled Greek legends of all those coins that bear the name of Strato on the reverse, and rejecting unconditionally the claim of Major Cunningham's PoxA YTONOX to any separate identity. I come to the class of pieces which bear on their obverse variously the titles of BAXIAEGE BAXIAEGN and BAXIAEGE ESTHPOE, followed by portions of a name or title which reads as PAZ and PAZIOBA. On the reverse this money exchanges the legend of Mahdrajasa Tradatasa Stratusa for Chatropasa apratichakrasa Ranjabalass.3 Whether the PAZIOBA of the obverse legend be an imperfect attempt at a Greek rendering of the native name is of but little consequence, as we can hardly reconcile Ranjabala's humble titles on the reverse with the higher designation applied to Strato himself, or the more pompous BANIAEGN BANIAEGN, assumed by that monarch's successors, which figure indifferently in contact with and contrast to the grade of Satrap, to whose dignities alone the former limits his claim. In brief, the coins would merely seem to exemplify an oft-recurring phase in Indian Imperialism. where the decline of the central power encourages, and at times necessitates, the effective assertion of independence by the local rulers, however much they may avoid or delay the overt act of positive disavowal of allegiance,

The monograms on the debased coins of Strato are entered under Nos. 97 to 99. Those on Ranjabala's money are reproduced as Nos. 100 to 104.4

3 Major Cunningham makes it Rejabilana, but the better preserved coins give the suffix a in full distinctness. His translation of Apratichabra, as 'invincible with the

the discus, is satisfactory.]

4 [No. 101 is interpreted by Major Cunningham as Hasti for Hastindpura, the ancient Hindu capital on the Ganges above Mecrut.]

<sup>1 [</sup>Major Cunningham observes: 'The greatest number were procured at Mathura, on the Jumna, and were said to have been found in the ruins of the city, along with some rude hemidrachmas of Strato' ('Jour. As. Soc. Beng.,' vol. vii., 1854, p. 681'). I do not know how many of these mixed pieces Major Cunningham obtained on this occasion, but my native coin-collector, who gleaned part of the remainder, brought me 84 coins, more than half of which number were Strato's.]

2 [See Useful Tables infrd. Table xix. Rajapala.]

# XXII.-HIPPOSTRATUS.

1.—Didrachma.

OBVERSE: - Bare head of king, to the right, with fillet.

LEGEND: - BAZIAEGZ ZOTHPOZ HIHOZTPATOT

Reverse:—Standing figure of Demeter, with crested belinet, right hand extended, the left supports a corrucopia.

ARIAN LEGEND: - Midhirajasa Tradatasa Hipastratasa.

Monogram, No. 85.

Mr. Bayley and B.M. 'Num. Chron.,' vol. xvi., pl. p. 108, fig. 5.

-).—Hemidrachma. Similar types. Monogram, No. 85.

Captain Hay.

Didrachma. (British Museum coin, weight 139 gr.)

OBVERSE :- Bare head of king, to the right, with fillet.

LEGEND :- BAZIAEGE METAAOT ZOTHPOZ IIIIOZTPATOT.

REVERSE:-Helmetod figure on horseback, to the right; horse in motion.

ARIAN LEGEND: — Maharojasa Tradatasa Mahatasa Jayatasa Hipastretasa. Monogram, No. 105.

Mr. Bayley, No. 105, with Arian lo on the field. Captain Hay, 105a with lo, and No. 106, M. N. (?) Col. Abbott, 38a. British Museum, No. 47a. 'Num. Chrous,' vol. xvi , pl. p. 108, fig. 4.

\*). -Hemidrachma. Similar types. Monogram, 105a.

Mr. Brereton.

3.-Didrachma. (British Museum coin; weight, 144-5 grains).

ORVERSE: - Device and legend as in No. 1.

REVERSE: - Horseman, motionless. Legend as in No. 2.

Monogram, No. 105, with the several adjuncts of No. 106, and the detached Arian letters to and pri. Mr. Bayley, British Museum, etc.

4.-□ Copper.

OBVERSE : - Apollo standing, to the right Legend as in No. 1,

REVERSE: - A tripod. Legend as in No. 1.

Monogram, 85.

Mr. Bayley.

5.- Copper.

OBVERSE: - Jove enthroned, Legend as in No. 1,

REVERSE: - Horse, standing, to the left.

ARIAN LEGEND: - Maharajasa Tradatasa Jayatasa Hipostratasa, Cunningham, 'Jour. As. Soc. Beng.,' vol. xi., pl. fig. 9.

#### XXIII. TELEPHUS.

 Major Cunningham has made public the only known coin of this king, ('Jour. As. Soc. Beng.,' vol. xi., p. 133), which he describes as follows:—

OBVERSE: - 'An ancient giant, full front, with snaky legs, which curl upwards on each side.'

LEGEND: - BANIAEDN EYEPFETOY THAEGOY.

Revense: - 'A draped male figure standing, to the left, his head crowned with rays, and holding in his right hand a spear; to the right, a clothed female figure, with a crescent on her head."

ARIAN LEGEND: - Máhárajasa . . . . kramasa Taliphasa.

Monogram, No. 107.

#### XXIV. HERMANS.

 Didrachma. Plate xviii., fig. 1. (Selected British Museum coins; weight, 140 and 144 grains).

OBVERSE: - Head of king, to the right.

LEGEND :- BANIAEGN NOTHPON EPMAIOT.

REVERSE: - Jove enthroned, right hand extended.

ARIAN LEGEND: - Máhárajasa Tradatasa Hermayasa.

Monogram, E. I. C., Nos. 175, 36, 1085.

"Ariana Antiqua," pl. v., fig. 3.
British Museum monograms, 32s, 108, 108s, associated with 110. Mr.
Brereton, 109. Colonel Bush, 108s.

\*)—Hemidrachma. Similar types. Monograms, British Museum, 21, 338, 48c, 90a, 111, 112. B. I. 113. Mr. Broreton, 22s. Captain Hay, 114. Mr. Freeling, 53a.
 \* Jour. des Sav., 1835, i. 13. 'Ariana Antiqua,' pl. v., fig. 3.

#### HERMEUS AND CALLIOPE.

2. Hemidrachma.

Onvense: - Male and female heads, to the right.

LEGEND :- BARIAGON MOTHPON EPMAIOT KAI KAAAIOHHN.

REVERSE :- Horseman, as in Autimachus' coins.

ARIAN LEGEND: - Middingses Tradatasa Hermayasa; and at the bottom, in the reverse direction, Kaliyapaya.

Ariana Antiqua, pl. xxi., fig. 14. Capt. Robinson, Mr. Bayley, Mr. Brereton, etc., all have the same monogram, No. 108a.

- Copper. Plate xviii., figs. 2, 3, 4. Identical in type and legends with No. 1.

   Ariana Antiqua, pl. v., figs. 4, 5, 6.

   Monograms, No. 115, with Bactrian letters lo, and No. 115s, with the several Bactrian letters classed under No. 116.
  - \*)-O Copper. Small coins. Similar types.
- 4.—□ Copper. Plate xxviii., fig. 11.

OBVERSE: - Bust of king, with curiously arranged head dress.

LEGEND :- BAZIAEGE EGTHPOZ EPMAIOT.

REVERSE: - Horse standing to the right,

ARIAN LEGEND :- Mahurajasa Tradatasa Hermayasa.

Monograms, 31, 109.

'Ariana Antiqua,' pl. v., fig. 7.

 Variety. 'Ariana Antiqua,' pl. xxi., fig. 15. Head-dress as in Amyntas' coin, pl. xxxii., fig. 1, monogram 109.

Extra Monograms of Hermseus: — 200, 240, 36a, 38, 1080, with Arian letters k, s; 115a, with elongated downstroke of r (or 1150), associated with the Bactrian letters trd, c, dh, sh, and s (?); also 117 to 119 inclusive.

#### XXIVA. SU-HERMÆUS.

1.- Copper. Plate xviii., fig. 9; and pl. xxviii., fig. 10.

ORVERSE :- Head of king, to the right.

LEGEND, imperfect :- BANIAEON NTHPON NY EPMAIOT.

REVERSE :- Hercules standing with his club resting on the ground.

ARIAN LEGEND: - Dhama Phidasa Kujula Kasasa Kushanayatugasa.

'Ariana Antiqua,' pl. v., figs. 8, 9, etc.

These coins are usually deficient in monograms. In one case I notice the Bactrian combination No. 63 on the reverse field.

Major Cunningham conjectures these mintages to have formed a portion of the issues of Kozoula Kadphises (No. xxvi.), struck during the lifetime of Hermæus.—'Jour. As. Soc. Beng.,' 1854, p. 709.

#### XXV. MAUAS.

Didrachma. (Weight, 161 4 grains).

Onvxusx:-Male figure, to the front; right arm extended, the left supports a spear.

LEGEND :- BANIAEON BANIAEON METAAOT MATOT.

REVERSE :- Victory, with chaplet, to the right.

ARIAN LEGEND : - Rajadirajasa Mahatasa Moasa.

Monogram, No. 388.

British Museum, 385. Capt. Robinson, No. 38s. Lady Sale's coin (weight, 143 grains), monogram, No. 89.

\*)-Hemidrachma. Similar types.

Capt. Robinson, monogram 38s. Capt. Hay, No. 64.

2 .- Didrachma.

OBVERSE:—A bigs, with horses at speed. The driver wears a helmet; the chief figure holds a spear, a nimbus surrounds his head.

REVERSE:—Jove enthroned, as in Hermsons' coins, with triple-pointed spear (trident?),

Monogram, No. 107a.

Capt. Robinson.

3 .- Copper. Plate xiii., fig. 4.

Onverse :- Elephant's head.

REVERSE:-Caduceus.

LEGEND: -BAXIAEGX MATOT.

Monogram, No. 89.

British Museum. 'Ariana Antiqua,' pl. viii., fig. 11

4. - Copper (small coin).

OBVERSE: - Apollo, to the front, as in Apollodotus' coins: arrow in the right and bow in the left hand.

LEGEND :-- BAXIAEDE MAYOY.

REVERSE :- Tripod.

ARIAN LEGEND :- Maharajasa Moasa.

British Museum. Mr. Brereton

5. — □ Copper.

OBVERSE: —Female figure, to the front, with spear; crescent above the head.

Two six-pointed stars or constellations appear in the upper part of the field, one on each side of the figure.

LEGEND :- BAXIAEGN BAXIAEGN METAAOT MATOT.

REVERSE:-Victory with chaplet, to the left.

ARIAN LEGEND: - jadirajasa Mahdiasa Moasa.

Monogram, No. 120. British Museum, and less perfect coin B. I.

6. -□ Copper.

OBVERSE: - Jove enthroned, with small figure at the side.

REVERSE :- Female figure, as on the obverse of No. 5.

Monogram, No. 120. 'Ariana Antiqua,' p. 315.

Variety.

REVERSE: - Figure as above; but the crescent is strangely transformed, and the stars on the field are wanting.

Monogram 120.

Mr. Brereton.

7.- O Copper.1

OBVERSE :- Figure clothed in skins, with nimbus.

REVERSE :- Indian bull, to the left.

British Museum. Monogram, No. 89.

Monogram, No. 52.

Mr. Bayley and Capt. Robinson.

8.-□ Copper. Plate xliii., fig. 11.

Onvense: - Male figure, with club and trident, flowing robes, etc.

Monogram, No. 121.

Rnvnusn: --Victory, with loose garments (similar to the figure on the obverse), and a varied style of chaptet.

> Ariana Antiqua, pl. viii., fig. 10. Monogram, 122. B. I. Monogram, 123.

9.—□ Copper. Pl. xv., fig. 11.

OBVERSE :- Elephant.

REVERSE :- Seated figure.

Monogram, No. 115b.

'Jour. des Sav.,' 1839.

Mr. Frere.

10.- □ Copper. Pl. xv., fig. 7.

OBVERSE:-Male figure, to the left, in flowing garments, holding a chaplet.

REVERSE :- Indian lion, to the right.

B.I. Monogram, 112a.

11.- Copper.

OBVERSE:—Hercules to the front, with club and lion-skin, the right hand rests upon the hip.

REVERSE: - Indian lion, to the left.

Monogram, No. 89.

Mr. Brereton,

<sup>1</sup> [A coin of this type is engraved in Mr. H. T. Prinsep's 'Historical Results,' pl. v., fig. 1,]

12.-□ Copper.

Onvense:-Neptune, with trident, treading upon a prostrate figure.

REVERSE: - Figure surrounded with branches.

Monogrom, No. 120.

Colonel Nuthall. Mr. Brereton, and 'Ariana Antiqua,' p. 314.

13. -- □ Copper.

OBVERSE: - Neptune, with the right foot placed on a prostrate figure as in No. 12; the left hand rests on a trident, while the right is raised in the act of hurling the thunderbolt.

REVERSE: - As in No. 12, Monogram, illegible.

Lady Elliot.

14. -□ Copper.

Onverse: -As No. 13, except that Neptune holds a palm-branch in the left hand in lieu of the trident.

REVERSE: -As No.13.

Monogram, a modification of No. 1155.

Mr. Bayley.

15.—□ Copper.

OBVERSE: - Horseman, with a fold of his dress flying loose behind him.

Monogram, illegible.

REVERSE:—Helmeted figure, in loose garments, moving to the right, holding a garland in the right and a spear in the left hand.

Monogram, mi.

Mr. Bayley.

16.-□ Copper.

Onverse:-Horseman, with spear.

Reverse:---Wingod Victory, to the left, holding a chaplet in the right hand.

Monogram, No. 1155.

Mr. Bayley.

17.-□ Copper...

OBVERSE: - Standing male figure, to the front; right arm uplifted, in the left a club. Monogram, No. 1155, with an Arian ti.

REVERSE :- Indian bull, to the right.

Monogram, No. 115a,

Mr. Bayley.

A second coin, in the possession of Mr. H. Brereton, gives the name clearly as MAYOT.

18.-□ Copper.

OBVERSE :- Elephant.

REVESSE :- Indian bull.

Mr. Brereton. Capt. Hay.

#### XXVI. KADPHISES.

1.-Copper. Plate xxviii., fig. 12.

OBVERSE :- Head as in the Su-Hermieus' coins.

LEGEND: - KOPEHAO [Variety, KOPONAO] KOZOTAO KAAGIZOT-

REVERSE :- Hercules as above.

Arian Legend:—Dhama Phidasa Kujula Kasasa Kushanoyatugasa.

Monograms, Arian dh with r. 'Ariana Antiqua,' pl. xi., figs. 10, 11.

<sup>1</sup> [Major Cunningham, in the 'Jour. As. Soc. Beng.,' vol. vii. of 1864, p. 709, transcribes this legend as follows:—Kujula Kazasa Kushanga Yathagasa Dhamapidasa.

# XXVI\*. KOZOLA KADAPHES.

Copper small coin. Plate xviii., figs. 13, 14, 15; and pl. xxviii., figs. 13, 14.
 Obverse: - Youthful head.

LEGEND :- KOZOAA KAAADEE XOPAN ET ZAGOT.

Revense: - A Scythic figure.

Anian Lugend: - Khashanasa Yawasa Kuyula [Kuyanla?] Kaphetea Sechba dhani phidasa.

Monogram, No. 124. Some specimens add the Bactrian letter inserted in the plate under No. 125.

"Ariana Antiqua," pl. xi., fig. 14,

# XXVI<sup>b</sup>. Kodes.

1.—Hemidruchma. Plate xiii., figs. 11, 12, 13.

Onvense :- Barbarously executed head of king.

LEGEND :- KWAOY.

REVERSE: - Erect figure, with flames issuing from the shoulders; the right hand rests upon a spear.

LEGEND :- PAHOPOY MAKAP.

'Jour. des Sav.,' 1834, pl. fig. 8; 'Ariana Antiqua,' pl. ix., figs. 1, 2, 3, 5.

Hemidrachma. Plate xxxii., figs. 16, 17, 18.

OBVERSE: - Head as above.

Reverse: - Horse's head.  $K\omega\Delta$ .

"Jour. des Sav., 1834, pl. fig. 9. "Ariana Antiqua," pl. ix., figs. 4, 6, 7.

# XXVII. VONONES (AND AZAS).

#### CLASS A.

I understand that Major Cunningham has discovered coins with the above combination of names. The specimens are engraved in his unpublished plates, but I do not consider myself authorized to quote them in any detail beyond this notice of the interesting historical fact they suffice to substantiate.

# VONONES (AND SPALAHORES).

#### CLASS B.

1.-Didrachma.

OBVERSE: - Azas' horseman with spear at the charge, to the right.

LEGEND: -- ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ ΜΕΓΑΛΟΥ «ΝΩΝΟΥ.

REVERSE :- Jupiter with spear and bolts.

ARIAN LEGEND: - Maharaja Bhrata Dhramikasa Spalahorasa.

Monogram, No. 536. Capt. Robinson.

\*)—Hemidrachma. Pl. xv., fig. 5. Similar types and legends.

Monograms, 536, 126. 'Ariana Antiqua,' pl. viii., fig. 8.

The nearly parallel epigraph on Kozola Kadaphes' money is transliterated and translated thus—Kushanga Yathaasa Kujula Kaphaasa Sachka dharmapidasa, 'Coin of the king of the Khushang Kujula Kapha, the crown of the true Dharma."]

2.—□ Copper. Plate xv., fig. 10.

OBVERSE: - Hercules, with club and lion's skin, right hand raised to the head. LEGEND: - BAZIAEGZ BAZIAEGN METAAGY ONGNOT.

REVERSE: - Minerva, to the left, armed with shield and spear, right arm extended.

Anian Legend: - Maharaja Bhrata Dhramikasa Spelahorasa.

Monograms, No. 126. B.I. 126a.

'Jour. des Sav.,' 1835, pl. ii., fig. 20. 'Ariana Antiqua,' pl. viii., fig. 9.

3.-□ Copper.

Onversu: - As in No. 2.

REVERSE . - Device as in No. 2.

Arian Lugund: -Spakora Bhrata Dhramikasa Spelahorasa.

Monogram, 126.

Mr. Brereton.

VOYONES (AND SPALAGADAMES, SON OF SPALAHORES.

#### CLASS C.

Hemidrachma.

OBVERSE :- Azas' horseman, with spear.

LEGEND: - BANIARON BANIARON METAAOY ONONOY.

REVERSE: - Jupiter, with spear and bolts.

ARIAN LEGEND: - Spalahora Putrasa Dhromikasa Spalagadamasa.

Monograms, British Museum coin, 127. Col. Sykes, 132a. Mr. Brereton, 48c, 128, 128a.

2.-□ Copper.

OBVERSE: - Hercules, as in No. 2, class B.

LEGEND: - ΒΛΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ μεγαλοΥ οΝΩΝΟΥ.

REVERSE:-

ARIAN LEGEND: - Spalhora Putrosa Dhramiasa (Spala) gadamasa.

Monogram, 128.

Mr. Brereton.

#### SPALIRISES AND AZAS.

#### CLASS D.

1.-Didrachma.

Onverse :- Azas' horseman.

LEGEND :- BACIAELIC METAAOT PHAAIPICST.

REVERSE: - Jove, as above.

ARIAN LEGEND: - Mahdrejasa Mahdtakasa Ayasa.

Monogram, 130.

\*) - Hemidrachma. Similar types.

Mr. Frere.

Monogram, 129, with Bactrian letters, si.

Mr. Brereton.

2.- Copper.

ORVERSE :- Azas' horseman.

LEGEND :- BACIAELIC METAAOT PHAAIPICOT.

REVERSE : - A bow and arrow.

ABIAN LEGEND: - Maharajasa Mahatakasa Ayasa.

Monogram, 127b.

Mr. Bayley.

#### CLASS Co.

# XXVIII. SPALYRIOS OF SPALAGADAMES (alone). THE BEOTHER OF THE KING.

1 .- D Copper. Pl. xv., fig. 9; pl. xxviii., fig. 6.

OHVERSE :- Azas' horseman.

LEGEND :- CHAATPIOC AIKAIOT AAEAPOT TOT BACIAEWE.

REVERSE :- Hercules seated on a rock.

Arian Legend: -Spalahora putrasa Dhramiasa Spalagadamasa.

Monograms, Nos. 48c, 127c, 128. 'Ariana Antiqua,' pl. viii., fig. 13.

#### CLASS Da.

# XXIX. SPALIRISES (alone).

1.-Hemidrachma,

OBVERSE: - Azas' horseman; spear at the charge.

LEGEND imperfect: - BACIAEGN BA . . . . PHAAIPICov.

REVERSE:-Neptune to the front, with trident and bolts.

ARIAN LEGEND :- Maharajasa . . . . . Spalirisasa.

Monogram, 48e.

Capt. Hay.

2. - Copper. Plate xv., fig. 6; pl. xxviii., fig. 7.

OBVERSE :- Female figure, to the left.

LEGEND: - BACIACUN BACIACUC METAAOY PRIAMPICOY.

REVERSE: - Jove enthroned.

Anian Legend: - Maharejasa Mahatakasa Spaliripasa.

Monograms, Nos. 131, 131s, and 131b.

Ariana Antiqua, pl. viii., fig. 12.

#### XXX. Azas.

1. → Didrachma,

Onvense: -The standard Azas' type of horseman, to the right; the spear point slightly depressed.

LEGEND :- BAZIAEGE BAZIAEGN METAAGT AZOT.

REVERSE: - Female figure, with palm-branch in the left, and a four-pointed object in the right hand, somewhat after the nature of the Scythian monograms, No. 169, etc.

ARIAN Lugend :- Mahirajasa Rajarajasa Mahatasa Ayasa.

Monogram, Captain Robinson, 132, with Arian letters, mi.

'Ariana Antiqua,' pl. vi., fig. 12. 'Jour. des Sav.,' 1835, ii., 16, menogram, 133 with see.

-).—Hemidrachmas.

Monograms, No. 133, with Arian letters bb and db; No. 133, with the word son; No. 38a, with severally 53b and an Arian t; No. 38a, with a Greek A and an Arian t; No. 38a, with an Arian t alone; No. 134, with an Arian si; No. 134, with db and mi.

'Ariana Antiqua,' pl. vi., fig. 18.

2. - Didrachma-

Onverse: - Horseman, as above.

REVERSE: - Minerva Promachos, to the left.

Monograms 85; 85, with Arian s on obverse; 85 simple with 132; 133, with the Arian word ass, and No. 63s.

Hemidrachma.

Monograms, British Museum, 85; Captain Robinson, 85 simple with 132.

3. - Didrachma

OBVERSE :- Horseman, as above.

REVERSE: -Jupiter, with spear and bolts.

Monograms, Capt. Robinson, 1324 with 54. British Museum, 1324 with dh.

4.-Variety of No. 3. Didrachma.

OBVERSE :- Horseman, as above, with the Arian letters Pri below the horse.

REVERSE: - Jove, with the spear or sceptre, triple-pointed, the points diverging from one centre; nimbus encircles the head.

Monogram, No. 85.

5.-Hemidrachma.

OHVERSE: - As above.

Monogram, Arian letters /i.

Ruvnusn: -Jove, with triple-pointed sceptre; but the right hand is elevated in the net of throwing the thunderbolt.

Monograms, No. 85e, with an Arian a.

Captain Robinson.

\*). - Hemidrachma. Variant.

OBVERSE: - As above.

REVERSE:—Jupiter rayed, to the front, leaning on a spear; the bolts are held in the right hand low down.

Monogram, No. 135.

Captain Robinson.

6 .- Didrachma.

OBVERSE:—The Azas' horsemen, to the right, without the spear; the right hand of the figure is extended above the horse's head.

Monogram, an Arian s.

REVERSE: - Minerva, to the right, helmeted and armed with buckler; right hand extended.

Monograms, Captain Robinson, 52, with a. Lady Elliot, double monogram, 138 and 139, without the Bactrian adjunct of the latter. Mr. Carne's collection, monogram, No. 141, with the several Arian letters san, si, pi, or dh.

(6).-Variety.

Onvesse: -Horseman, as above, with whip in the right hand and bow behind the sadlle.

REVERSE :- As in No. 6.

Monogram, 85 simple, with 1336.

\*).-Hemidrachma.

Monogram 85.

Mr. Bayley.

b).-Variety.

REVERSE :- Minerva, to the left.

Monograms, obverse, Arian ao; reverse, 85.

Mr. Brereton.

7.-Didrachma. Plate xvii., fig. 17 (?).

Onversu: - Horseman, as above, with whip in the right hand, bow at the back of the saddle.

REVEUSE:-Standing figure, with spear, holding a small statue of Victory.

'Ariana Antiqua,' pl. vi., figs. 15, 16 (?), 17.

British Museum, monograms, 38s with 53, and Arian letters t, bu, dh, etc.; others, with t, omit No. 53. B.I., monogram, obverse, Arian ji; reverse, 134s associated with 53b and 63; a second, reverse, No. 42 with 136, and an Arian dh. Mr. Brereton, obverse, monogram, ass; reverse, as in the first cited B.I. coin.

a).-Hemidrachma.

Monograms, No. 137, with sen; a second; No. 138, with dh and s. Lady Elliot. Mr. Brereton, 38s with Arian s; a second, obverse, Arian s; reverse, 38s with 139.

8 .- Didrachma. Plate xvii., fig. 15.

OBVERSE: - Horseman, as above.

Monogram, Arian ti.

REVERSE: - Minerva, with spear, to the right; bare head, and right arm extended.

Monogram, 85 simple with 133s. B.I., obverse, monogram, Arian ti; reverse, 85s with 133s. 'Ariann Antiqua,' pl. vi., fig. 13.

(8),-Variety. Billon.

Ruverses: - Similar figure, with triple-pointed spear. Monogram, Arian si and 1345.

9.-Didrachma. Billon. Plate xvii., fig. 16.

OBVERSE :- As above.

REVERSE: - Neptune, with trident, to the front.

Monogram, No. 140, with si.

'Ariana Antiqua,' pl. vi., fig. 14.

Hemidrachma. Plate xvii., fig. 18.

Onvense:-Horseman, as above, with bow and whip.

REVERSE:—Minerva, to the front, armed with spear and shield, the right arm upraised.

Monograms 135s, with sek; 135è and Arian monogram 142, se shi ? 136è with 39s. Another: obverse, monogram s; reverse, 140s, with an indistinct symbol like 132. Miscellaneous: obverse, mint-marks Arian letters s, i, g, and sd.

'Ariana Antiqua,' pl. vi., fig. 19.

11.-Drachma.

OBVERSE: -King, standing, to the left; right hand extended, and sloped spear on his left shoulder.

REVERSE:—Winged figure of Victory, to the right, holding out a chaplet.

Monogram, No. 64.

10.-□ Copper. Plate xvii., fig. 14.

ORVERSE:-Neptune, treading on a prestrate figure. Legend as above.

REVERSE: — Female figure, surrounded by branches. Legend as above.

Monogram, No. 64. 'Arisna Antiqua,' pl. vii., fig. 5.

Mr. Brereton has a superstruck piece of this class, offering the peculiarity in that the obverse legend exhibits portions of the epigraph of two distinet dies: it may be represented in its present state thus - EATHPON βωτιΛΕΩΝ ΜΕΓΑΛΟΥ ΑΖΟΥ.

11.- Copper.

OBVERSE: - King, riding on a Bactrian camel. REVERSE: - Thibetan yak (or long-haired bull).

'Ariana Antiqua,' pl. vii., flg. 6.

12.-□ Copper. Plate xvi., fig. 9.

OBVERSE :- King on horseback, with spear sloped. .

REVERSE: - Indian bull, to the right.

Monograms, No. 85; 85 simple, with t, and the four variants classed under No. 143. Another: obverse, saw; reverse, 134 with st.

'Ariana Antiqua,' pl. vii., fig. 12.

13.—□ Copper. Plate xv., fig. 8.

ORVERSE:-Hercules, to the front, with chaplet upraised in his right hand, and club in the left, after the manner of the reverse devices of Demetrius.

Monogram, 538.

REVERSE :- Horse, free, to the right. Monogram, mi.

Ariana Antiqua, pl. vii., fig. 7.

14 .- Copper. Plate xvi., figs. 4, 5.

Onvense .- Elephant, to the right.

REVERSE :- Indian bull, to the right.

Monograms, Nos. 52 with Arian a; 85; 86 simple with 142a; 85 simple with 132.

'Ariana Antiqua,' pl. vii., fig. 10.

Copper. Plate xvi., figs. 1, 2, 3.

OBVERSE .- Humped bull, to the right,

REVERSE : - Indian lion, to the right.

Arian Legend: - Maharajasa Rajadirajasa Mahatasa Ayasa.

Monograms, 132 with 145s, 135s with 39s, 1355 with 39s, 1435 with 39s, 144 with 138, 145 with 138, 145 with 146, 1355 with 142, 855 with 133, 1346 with se.

'Ariana Antiqua,' pl. vii., fig. 8,

\*)-Small coins. Similar types.

'Ariana Antiqua,' pl. vii., fig. 9.

b)—□ (?) 'Ariana Antiqua,' pl. vii., fig. 3. Monogram, s. Rev. monogram, pr.

16.- Copper, Plate xvi., fig. 10.

OBVERSE: - Demeter, scated on a throne.

REVERSE :- Hermes, standing.

Arian legend as in No. 1.

Most common monogram, No. 1355 associated with 142.

' Ariana Antiqua,' pl. vii., fig. 12.

1 [Some months ago (1857) Mr. Bayley read an interesting paper, on the subject of the superstruck coins of Azes, at one of the meetings of the Numismatic Society.] 17.- ○ Copper. Plate xvi., fig. 12.

OBVERSE:-Figure, seated cross-legged.

REVERSE :- Hermes, standing.

ARIAN LEGEND, as in No. 15.

Monograms, the combinations entered in plate xi.s from No. 147 to 153. 'Ariana Antiqua,' pl. vii., figs. 13, 14.

\*)-Small coins, ditto.

'Ariana Antiqua,' pl. vii., fig. 15.

18.— Copper.

OBVERSE :- Female figure, clothed in Indian garments, standing to the front; the right arm is raised towards the head, and the left hand rests upon the hip.

REVERSE: - Humped bull, to the right.

Mr. Brereton, monogram 154. Mr. Bayley, monograms indistinct.

19.- Copper.

OBVERSE :- A lion, sejant.

LEGEND, blundered and unintelligible.

REVERSE: - Rude figure of Demeter, seated,

ARIAN LEGEND: - Máhárajasa . . . . . Ayasa.

Monogram, No. 31s, with te.

Mr. Bayley.

20.- Copper. Minute coin. Types similar to No. 7. Monograms, Obv. No. 155, and usi. Rev. No. 38s and sau. Mr. Bayley.

21.—○ Copper. Types similar to □ Copper, No. 12. Monogram 85.

Mr. Brereton.

22,- Copper.

OBVERSE: - King on horseback, with the right hand extended.

Monogram 124a.

REVERSE: - Indian lion to the right.

ARIAN LEGEND, imperfect : - Miharajasa Mahatasa . . . . Ayasa. Col. T. Bush.

Monogram indistinct.

23.- Copper.

OBVERSE: - Axas' horseman with whip and bow.

Monogram, 157.

REVERSE: - Minerva, to the right; with sloped spear and right hand extended. ARIAN LEGEND, as in No. 15.

Monograms, group 158.

24.- O Copper. Plate xvii., fig. 22.

OBVERSE:-Horseman, with right hand raised,

Monogram 124s.

REVERSE :- Demeter, standing, to the front; right arm extended, the left supports the cornucopin.

Arian Lugund: — Maharajasa Mahatasa Dhramikasa Rajadirajasa Ayasa. Monograms, No. 156, 156 with db, 156s, 156s, 156s, with variants of miscellaneous Bactrian letters on the field.

VOL. II. 14 25.-Plate ii., figs. 11, 12.

ONVERSE :- Indian lion, to the right.

REVERSE :- Demeter, standing, to the left.

ARIAN LEGEND: - Miharajasa Rajatirajasa Mahatasa Ayasa.

'Jour. As. Soc. Beng.,' vol. ix., p. 876.

## SUB-AZAS (ASPAVARMA).

1.- Copper.

OBVERSE:-Azas' horseman, with right hand holding a whip.

LEGEND: - BARIARGE BARIARGN METAAOT AZOT.

Monogram, No. 157 (Agaj ?).

REVERSE: -Minerva, helmeted, with spear and shield, to the right; the right hand supports a small figure of Victory.

Anian Legend: 1—Indra Varma Putrasa Aspararmasa Strategasa Jayatasa (General Aspararma, son of Indra Varma, the victorious).

Monograms, No. 159, with 132, and the several Arian letters entered in the plate under No. 160.

As this catalogue does not profess to follow any authoritative serial distribution of the monarchs comprehended in the general list, I insert in this place, as most suitable, in obedience to typical order, certain obvious derivatives from the standard devices of Azas' mintages, which bear exclusively the names and titles of Satraps who may be supposed to have succeeded to the possession of local divisions of his once extensive dominions, but who refrained from arrogating to themselves the style and dignity of absolute monarchy.

#### ZEIONISAS.

1.-Didrachma. Plate xxviii., fig. 5.

ORVERSE :- Azas' horseman, with right hand extended, and bow at the back of the saddle,

LEGEND illegible. Monogram 159.

REVERSE: - King, standing, to the front; supported by two figures in the act of placing a chaplet on his head.

ARIAN LEGEND, imperfect at the bottom :-- Jihaniasa.

Monogram 161.

'Jour. des Sav.,' 1839, p. 102. 'Ariana Antiqua,' pl. viii., fig, 17. Cunningham, 'Jour As. Soc., Beng.,' 1854, pl. xxxv., fig. 1.

Hemidrachma. Unique.

ORVERSE :- Horseman as above.

LEGEND, COTTUPE :- ONNHAIT TIOT CATPAIL ZEIGNICOT.

Monogram 159.

REVERSE: - Standing figure of the king receiving a chaplet from Demeter?

ARIAN LEGEND: - Monigulasa Chatrapasa Putrasa, Chatrapasa Jihaniasa.

Monogram, No. 162.

Mr. Bayley. See also Cunningham, loc. ett., pl. xxxv., fig. 2.

<sup>1</sup> [Cunningham, 'Jour. As. Soc. Beng.,' 1854, p. 696. Strateges is identified with the Greek Magazinger.]

3.- Copper.

OBVERSE: -Indian bull, to the right.

LEGEND, corrupt and imperfect :- TI:AIT TIT CATPAIL.

Monogram, No. 159, with san.

ARIAN LEGEND: - . . . gula Putrasa Chatrapasa JIHANAYABA.

Monogram 163.

British Museum, two coins, from Major Cunningham's collection.

4. - Copper. Unique. Plate xlii., fig. 8.

ORVERSE :- Elephant.

LEGEND, corrupt and imperfect:—AHIZIGAAI ..... Zerunic. Monogram, P.

REVERSE: - Bull, to the left,

ARIAN LEGEND .- Moni . . . . . . . . . . . (Ji)hansasa.

Monogram as in the plate.

Col. T. Bush.

5,- Copper.

OBVERSE :- Azas' horseman.

LEGEND, imperfect. Combination obtained from six specimens gives no more satisfactory result than the following: — TATOT TOT XAPANIJC A - EICA. Monogram indeterminate.

REVERSE : - Sinka, or Indian lion, to the right.

ARIAN LEGEND, likewise imperfect and incomplete: - Chatrapasa Bhrata
Daophasa Abasa Putrasa.

Monograms, pra, X, etc.

'Arisna Antiqua,' pl. viii., fig. 2; and Cunningham, 'Jour. As. Soc. Beng.,' 1854, p. 695.

### XXXI. AZILISAS.

1.- Didrachma. Plate xvii., fig. 27.

OBVERSE: - Azas' horseman, with spear.

LEGEND: - BAZIAEGE BAZIAEGN METAAGY AZIAIEGY.

Monogram, ti.

REVERSE:—Figure, to the left, holding the four-pointed object in the right, and palm-branch in the left hand.

ARIAN LEGEND :- Méhárajasa Rajarajasa Mahatasa Ayileshasa.

Monograms, British Museum, 133 with sess and 5A; ditto, 134 with st.

British Museum monogram, I with si and g. Capt. Robinson, monogram 134 with si and s. B. I. Miscellaneous Arian letters, son, si, 5h, dh, with ti, and A with sess. 'Ariana Antiqua,' pl. viii., fig. 5.

\*)—Hemidrachma. Similar types. British Museum monogram, 132a, with i. Capt. Robinson, monogram X, with an Arian A.

## 2.-Didrachma.

OBVERSE as above, with Arian letter s in the field.

REVERSE :- Female figure, to the left, with chaplet and palm-branch.

Monogram, No. 77. 'Ariana Antiqua,' pl. viii., fig. 6.

3.-Didrachma. (145 grs.)

OBVERSE: -Azas' horseman, to the right, with whip and the bow fixed behind the saddle.

Monogram, No. 137.

REVERSE: - Dioscuri, standing to the front, leaning on their spears.

ARIAN LEGEND : - Maharajasa Rajadirajasa Mahatasa Ayilishasa.

Mr. Bayley. Col. Nuthall, Obv. monogram, 137 with b, and Rev. 164.

4. - Didrachma. (142 grs.)

OBVERSE as No. 3.

Monogram, 137a.

REVERSE:—Single figure, bearded, clothed in skins, to the front; the right hand grasps a spear, the left rests upon the sword hilt.

Monogram, No. 165.

Mr. Bayley. Mr. C. M'Lood.

5.- Copper.

OBVERSE: -Standing figure, to the front (indistinct), with right arm extended, and mantle on the left.

Monogrum, 30a.

REVERSE:-Lion, as in Axas' coins.

Monogram, No. 166. A second coin has mi (?)

Mr. Bayley. Capt. Robinson.

6.—□ Copper.

OBVERSE: - Azas' horseman, with spear sloped downwards.

REVERSE :- Bull. to the left. Arian legend as in No. 1.

British Museum monogram, 132 with we, and traces of monogram 125s.

\*) -Plate xvii., fig 28.

REVERSE :- Bull, to the right.

7.- Copper.

OBVERSE :- Azas' horseman,

REVERSE :- Elephant.

ARIAN Lugend :- Mihirajasa Mahatasa Ayilishasa.

Monogram, variety of No. 124, with si.

'Ariana Antiqua,' pl. viii., fig. 7.

8.- Copper.

Onverse :- Horseman.

REVERSE :-- Hercules, seated, with club, and as in Spalyrios' coins. (C a.)

ARIAN LEGEND, as in No. 7.

Monogram, No. 134, Mr. Bayley,

And a second piece, 167. Ordinary monogram, No. 134, with Arian s, st, or ti.

9.—□ Copper.

Onvense: - Standing figure, to the right, with the right arm extended horizontally, and holding a chaplet.

REVERSE :- Figure in short tunic, with loose veil-like garments around the head,

ARIAN LEGEND, imperfect :- . . . jasa Makatosa Ayilishasa.

Mr. Bayley.

# XXXII. SOTER MEGAS.

1.- Copper.

Onvansn: -Bust of king, with crested helmet, to the left; the right hand holds an arrow.

Monogram, No. 168, with the Arian letters &, in front of the profile.

REVERSE :—Azas' type of horseman, elevating a small object like a cross.

LEGEND: -BACIASV BACIASVON COTHP MCTAC.

Monogram, No. 168.

Mr. Bayley.

'Ariana Antiqua,' pl. ix., figa, 8, 10.

2 .- Copper. Plate xvii., fig. 26.

OBVERSE: -Bust of king, with rayed head; the right hand holds either a javelin with pounous, or a simple dart.

Monogram, No. 168.

REVERSE: - As above.

Monogram, No. 168.

'Ariana Antiqua,' pl. ix., figs. 11 to 19.

There are numerous subordinate varieties of this type of coin, which it is needless to particularize in this place. But I may notice that the degraded Greek sigmas, which have heretefore usually been rendered by a square C, are, in these mintages, indifferently interchanged with the equally debased C on the different specimens.

3. Copper. Plate xvii., fig. 23.

ORVERSE :- King on horseback, to the right.

LEGEND :- BACIAEV BACIATVON COTTHE METAC.

Reverse: -A male figure, with flat helmet and fillet, casting incense upon a small altar.

ARIAN LEGEND: - Maharajasa Rajadirajasa Mahatasa Tradatasa,

Monogram, ti.

"Ariana Antiqua," pl. ix., figs. 20, 21, 22.

4.- Copper.

OBVERSU:-Head, with fillet, to the right.

Monogram, No. 168.

Huvunsu:—Standing figure, to the left, holding a staff or spear in the left hand, and what may possibly be intended for the thunderbolt in the right.

Greek Legend (imperfect).

Mr. Bayley.

## XXXII<sup>a</sup>. Kadphises.

1 .- Gold, Unique.

OBVERSE: - King, seated after the Oriental fashion (cross-legged) on clouds.

He holds a club in his hand, and small flames ascend from his shoulders; he wears a Scythic cap surmounted by a single-centred trident.

LEGEND :- BACIAETC COHMO KAACICHC.

Monogram, 169.

REVERSE: — Siva and his bull (Nandi); flames rise from the divinity's head; he holds a trident in his right hand.

Anian Lugund: — Mahárajasa Rejadirajasa sarveloga Imastasa Mahimastasa hapinasasa.

Monogram, 159.

Captain Robinson.

2.—Gold.

OBVERSE :- King, seated on an Eastern throne, with a flower in his right hand. Legend and monogram as above.

REVERSE: - Device as No. 1.

Monogram, ditto.

'Jour. des Sav.,' 1834, pl. fig. 7. 'Ariana Antiqua,' pl. x., fig. 5. and pl. xxi., fig. 17.

I do not propose to enter into any detail of the coins of Kadphises in this place, as they scarcely belong to the Bactrian series. It will be sufficient to refer to the types already figured and described by Prinsep,1 and the additional specimens engraved in the 'Ariana Antiqua.' It is to be noted that these and other Indo-Scythian coins are known only in gold and copper, the single supposed silver specimen in the E.I.H.3 having proved to be of copper plated over !

### XXXIII. GONDOPHARES.4

1.- Copper. Plate xiiii., fig. 15.

OBVERSE :- Azas' horseman, to the right.

LEGEND :- BACIAECOC BACIAECON TONACOAPOY.

Monogram, No. 170.

REVERSE: - Figure, with trident,

ABIAN LEGEND: - Maharaja Rajaraja Mahatasa Gadapherasa.5

British Museum coin. Monogram, No. 171.

'Ariana Antiqua' (billon coin), pl. v., fig. 16.

<sup>1</sup> [Pl. viii., fig. 4; pl. xxii., figs. 1, 2, 3.] <sup>2</sup> ['Ariana Antiqua,' pl. x., figs. 7 to 21.]

3 ['Ariana Antiqua,' pl. xi., fig. 9.]

- An enquiry of considerable interest has been raised with reference to the name preserved on these coins, so long veiled from European intelligence, in virtue of the almost literal identity it bears to the designation of the king mentioned, in certain almost literal identity it bears to the designation of the king mentioned, in certain old church legends, as the ruling potentate of India at the period of the mission of St. Thomas the Apostle. The coincidence in the appellation is certainly remarkable, though there is a defect in the primary authority for the statement, a difficulty in regard to the correspondence of the site of the kingdom, and a doubt as to the needful accordance of the epochs of the legendary and the numismatically-certified monarchs, the latter of whom seems to belong to a date prior to our era; but, for the reconcilement of this last obstacle, there is a fairly open margin afforded by the successional coins, which in the mental approach the greation as to whether the near of cessional coins, which in themselves suggest the question as to whether the name of Gondophares was not posthumously elevated into the rank of a dynastic title. The erudite rectifications, pp. 30 and 591, vol. iii. (2nd part).]
- 5 [The Arian orthography of this name varies considerably, not only in the different mintages of diverse types, but even in pieces having similar standard devices : among the latter, belonging to class No. 1, I note Gandaphrata--- Gudupha, etc.]

2.- Copper. OBVERSE :- As above. LEGEND: -BACIAECOC BACIAECON METAAOT TNAOF SPPOT. REVESSE: - Minerva, armed, to the right. ARIAN LEGEND: - Mikaraja Rajadiraja Tradata . . . . Gadapharasa. Monogram, No. 134¢ with 172. Mr. Brereton, 'Ariana Antiqua,' pl. v., fig. 17. 3.- Copper. OBVERSE :- As above. REVERSE:-Male figure, with spear, to the right, Monograms, No. 134c with 173 (t and phre), No. 171 with 155a. 'Ariana Antiqua,' pl. v., fig. 18. 4.—□ Copper. (Type as in pl. xxviii., fig. 15; and pl. xxxii., fig. 14). OBVERSE: - King, on horseback; to his front is seen Victory, presenting a chaplet. μεΓΑΛΟΥ ΓΟΝΔΑ.] REVERSE: - Centre device, the monogram figured under No. 170, pl. xid. ARIAN LROUND:-Miki . . . Dhaga . . . sa Apratikatasa Ja . . . . sa Gudapharasa, Monograms, Arian letters, No. 63 and saw, Mr. Bayley. 'Ariana Antiqua,' pl. xxi., fig. 16, 5.- () Copper.1 OBVERSE:-Head of king, to the left; the contour similar to the Pakeres' busts. LEGENDS imperfect. B. B., etc. REVERSE :- Victory, with chaplet. ARIAN LEGEND :- Maharajasa Rejadirajasa Mahatasa Gudaphara . . . . . Monogram, gw, and an indistinct Arian letter. Mr. Bayley,

6.— Copper. Plate xviii., figs. 5-8.

ORVERSE:-Hend of king, to the right, greatly barbarised. [THPoC TNΔΟΦΕΡΡ.]

REVERSE:-Victory, as in No. 5.

ARIAN LEGEND: - Mihdrajasa Godopha , sa Tradatasa.

Mr. Brereton.

Mr. Brereton.

7 .-- Copper. Small barbaric coin.

OBVERSE :- Rude filleted head, to the right.

Abbreviated Greek legend, BACI BAC . . . T.

REVERSE:-Rude figure of Thessalian Minerva, to the right.

ARIAN LEGEND: - Rajadirajasa Mahatasa Godapharasa.

Monogram, Arian stri and hd or ho.

# XXXIV. ABDALGASES.

1.- Copper.

OBVERSE :- King's bust to the right, as in the Pakores' type,

LEGEND: - . . . IAELIC CLITHPOC A . . . .

REVERSE .- Figure of Victory, to the right (of good execution).

ARIAN LEGEND: - Tradatasa Maharajasa Abdagasasa.

¹ [There is an interesting coin in the British Museum, brought from India by Captain Hollings, typically connected with the above, which deserves mention in this place.— Copper. Obv.—Bust of king to the left, wearing the Parthian tiara. Imperfect legend, in corrupt Greek, BACIAET. Rev.—Figure of Victory, as in No. 6. Greek

2.- Copper.

OBVERSE: - Azas' horseman, to the right, with flat cap and flowing fillet; hand upraised.

LEGEND, COTTUPE :- BASIAETONTOL BASIAETONY ABANTASOT.

Monogram, 170.

A coin in the B. I. gives the name ABAATAZOT. Rev. monogram, 395 with 1745, etc.

REVERSE: -Erect figure, to the right; head-dress as on the obverse, with spear, hand extended.

ARIAN LEGEND: — Godophara Bhrada Putrasa Maharajasa Abdagasasa.

[Coin] 'of Gondophara's brother's son, Maharaja Abdagases.'

Capt. Robinson, 395 with Arian monogram, No. 174 (Sakre or Sephre).

Some of the coins of this series modify the obverse legend. It is usually in corrupt and bungled Greek, and difficult to make sense of; but it clearly accords with the substance conveyed in the Arian legend above transcribed, in defining the nepotal relationship of Abdalgases. A collation of three specimens (B. I.) produces the following imperfect version—BA IAETA □AAA ΓΥΝΔΙΦΕΡΟ ΑΔΕΛΦΙΔΕΩΙ. The Reverse legend is also uncertain in the different specimens, adding, at times, the titles of Tradatase and Dhramicse after the Maharaja. Monogram, 176.

Copper. Similar types.

LEGENDS, imperfect [1010FPO AAEA01] with the addition of the title of

Tradatasa before the name on the reverse. Mr. Brereton.

4 .- Copper.

OBVERSE :- Horseman, to the left.

REVERSE :- Figure as in No. 1, without the cap.

Major Cunningham.

\*)-Small coin. Mr. Bayley.

5.- Copper.

Onvense: -As No. 2. Monogram, No. 145 with t.

REVERSE: - Erect figure, holding a small statue of Victory, to the left.

Monogram, No. 134c, with Greek ΔP and Bactrian t. Mr. Bayley.

### SUB-ARDAGASES SASAN.

1.- Copper.

OBVERSE: - Horseman, as in No. 2. Legend imperfect.

Monogram, No. 170, with p. My 'Cabinet,' 170, and b.

REVERSE: - Pigure as above, No. 2.

Anian Legend :- Máhárajasa Mahatasa Tradatasa . . . . . . Godephrasa Sasasa.

Monogram, No. 159, with 

and small letters, p, ελ, etc, in the field. Mr. Bayley, p, pi, etc.

'Ariana Antiqua,' pl. v., fig. 20.

legend imperfect, but the name or title reads clearly CANABAPOT. Cf. Ælii Spartiani—Lugduni Bat. MDCLX1, p. 23; and Kercher, pp. 80, French edit., 59, Latin edit. Pammossires?

' [Major Cunningham renders the doubtful word here emitted as Deva-hadasa (Sanskrit, देव ह्व Deva-hridge), God-hearted, Өсөтрөмөт. 'Jour. A. Soc. Beng.,' 1854, р. 713.]

2. - Copper.

ORVERSE :- Axas' horseman.

REVERSE: - Jupiter, holding a figure of Victory, to the left.

ARIAN LEGEND: --Midhirajosa Saccha Dha(mapidasa) Sacasa [Cunningham].

Monogram, No. 134c, with Greek AP and Arian t.

'Arisna Antiqua,' pl. v., figs. 19, 20.

## XXXV. ARSACES.

I extract the following notice of the coins of Arsaces from Major Cunningham's paper in the 'Jour. As. Soc. Beng.,' vol. xi., 1842, p. 135.

1.- Copper.

OBVERSE :- A horseman, to the right.

LEGEND :- BACIASVONTOC BACIASCON AIKAIGT APCAROT.

REVERSE :- Type obliterated.

ARIAN LEGEND: -Mihirajasa Rajarajasa Mahatasa Ashehakasa Tradatasa.

2.- Copper.

OBVERSE :- A horseman, to the right.

LEGEND, imperfect ;-BAXI . . OT APXAKOT.

## XXXVI. PAKORES.

1.- Copper.

OBVERSE: - Bearded head, to the left; the hair is elaborately curled and arranged after the Persian fashion.

LEGEND :- BACIASTO BACIASSE HAKOPHO.

REVERSE :- Victory with chaplet, to the right.

ARIAN LEGEND: - Mahdrajasa Rajadirajasa Mahatasa Pakurasa.

Monograms, Nos. 177, 178, composed of Bactrian letters, with the additional foot-stroke peculiar to the style of writing in use on these coins.
'Jour. As. Soc. Beug.,' vol. xi., pl. fig. 11.

### XXXVIII. ORTHAGNES.

1.- Copper.

OBVERSE: - Head of king, to the left; the hair is arranged after the Persian fashion on the Pakores' device.

LEGEND (corrupt) :- BACIAETC BACIAECON METAC OPGAINHO.

REVERSE :- Victory, to the right, holding out a fillet.

LEGEND (imperfect) :- (Máhdrajasa f) Mahatasa Gudupharasa . . . . British Museum. Bactrian monograms, gu and go.

### COINS AND RELICS FROM BACTRIA.

[Article XXI. completes the series of James Prinsep's original essays. The subjoined paper by his brother, Mr. H. T. Prinsep, is reproduced from the 'Journal of the Asiatic Society of Bengal,' December, 1838, as introductory to, and partially illustrative of, my author's latest artistic contribution to Indian numismatics,—an engraving which he himself was not spared to comment on in the text of the Journal for whose pages it was designed.']

<sup>1</sup> [The severance of this connexion, at the time deemed only temporary, is recorded in the subjoined proceeding of the 'Asiatic Society of Bengal,' which, however intentionally complimentary, does but scant justice to the position James Prinsep achieved for the Society itself, in association with the journal of which he is here recognised as the editor]:—

Prinsep achieved for the Society itself, in association with the journal of which he is here recognized as the editor]:—

Extract from the proceedings of the 'Asiatic Society of Bengal,' Wednesday evening, the 14th November, 1838. The Hon. Sir Edward Eyan, President, in the chair.—Before proceeding to the general business of the meeting, the President rose and stated that he held in his hand a latter from the Secretary, Mr. James Prinsep, the substance of which must be a source of deep regret to every member of the Society, for every one must feel the loss the Society had suffered in the departure of its Secretary, Mr. James Prinsep. He assured the meeting, however, and he spoke on the authority of a conversation he had with Mr. Prinsep, before his departure, that this gentleman's absence from India would be but for a short period, and that on his return he would be ready to take the same interest, and to display the same real and anxiety, which had so honorobly distinguished his discharge of the important duties he had undertaken in connexion with the Society. The President said that the objects of the Society had, under Mr. Prinsep's able superintendence, been prosecuted with a vigeur which had added largely to its credit and reputation; and that the results produced in overy department of science and literature, for which the Society was indebted chiefly to its Secretary's activity and varied powers, had sustained its character in a manner rivalling the periods when it derived renown from the labours of a Jones, a Colebrooke, and a Wilson. The Prosident took occasion to add that, in the time of Mr. James Prinsep, and on his proposition, the name of the Society had been associated with a monthly periodical, established by the late Captain Herbert, originally under the name of 'Gleanings in Science.' The work was afterwards extended and ably conducted by Mr. Prinsep himself; and at his suggestion it was resolved, in 1831, that so long as this periodical should be conducted by a Secretary of the Society, it sho

Ir has been already announced in the pages of this Journal, that the extensive collections of coins and other relics made by Mr. Masson, by Sir Alexander Burnes, and Dr. Lord, were on their way to Calcutta, and were likely to fall shortly under the examination of the Editor. He felt it as a great compliment that was paid to his efforts to restore the lost portions of Indian and Bactrian history by means of the coins and inscriptions still extant in the language and with the superscriptions and dates of the raises of those times, that collectors in all parts of India were in the habit of submitting to his inspection whatever they lighted upon as unusual, and sought his reading and interpretation of the legends, emblems, and inscriptions, which baffled the learning and ingenuity of the pandits and antiquarians of the vicinity. As a consequence of the happy discoveries made by him in this line, coins and transcripts of inscriptions came in from all quarters, from Assam and Ava to Bokhára and Sindh, and from Ceylon northward to Nepal. The possession of the rich store of materials thus accumulated gave facilities

pendent. Now, he (the President) believed that all the members of the Society would regret exceedingly that a periodical so established, and which had acquired such credit and consideration, should be discontinued. He trusted that it would be resumed by Mr. J. Prinsep himself when he returned to India; but, in the meantime, he should submit to the meeting the propriety of taking into consideration the possibility of making some arrangement to carry it on during Mr. Prinsep's absence. Having premised thus much, the President stated that he should read to the meeting Mr. James Prinsey's letter, placing the situation of Secretary at their disposal: but, as he had no doubt it would be the unanimous feeling of the meeting to desire to retain Mr. Prinsep in official connection with the Society, he should not consider this letter as an absolute resignation, but should propose a resolution, and submit arrange-ments founded upon it, which would enable Mr. Prinsep to resume the office on his return to India. The President then read the following letter:-

To the Hon. Sir EDWARD EYAK, Et., President of the Asiatic Society.

How. Set,

How. Set,

How. Set,

Being compelled by IE-health to proceed to sea and eventually to Europe, I have taken my
passage on board the 'Hereforeishire,' with the intention of being absent from the country for
two or perhaps three years. I am thus under the necessity of placing at the disposal of the
Society the situation of its Secretary, which I have filled for five years.

It is with great reluctance and regret that I thus separate myself from a body with whom
I have been associated in labours of much interest and utility, whose favour has encouraged my
seal, and through whose credit and reputation in the world I have obtained the means of
making generally known my own humble efforts in the cause of science, and my not unsuccessful
endeavours to explore the antiquities of the country to whose service we are devoted.

But the disability of sickness is an accident to which we are all liable, and from which there is no resource, but in temperary departure to a better elimate. I am thus compelled to leave my incomplete labours to be perfected by others, and to relinquish the place I have held in the Society, that provision may be made for its competent discharge under the failure of my own power of longer rendering useful service.

There the houses to be at

I have the honour to be, etc. (Signed) 1st Nonember, 1838. JAMES PRINCES.

Proposed by the President, seconded by Mr. Curnin, and unanimously resolved: That the resignation of Mr. James Prinsep be not accepted; but the Society hope that he will return to resume the situation of Secretary, which he had filled so much to the credit of the Society for a period of five years.—Resolved: That the President communicate to Mr. James Prinsep the desire of the Society, that he shall not consider himself as having vacated the situation of Socretary; and express the hope that, on his return to India, he will resume the situation of Secretary.

of comparison and collation which were doubtless a main cause of his success; but the study and exertions required for the satisfaction of these numerous references to his individual skill, although entered upon with a zeal participated only by those who have achieved much, and feel that there is yet more within their reach which ought to be the result of their own discoveries, were too severe for the climate of India, and the Editor's robust constitution sunk at last under the incessant labour and close attention given to these favorite studies at the very moment when the richest collection of inscriptions, coins, and relies, that had ever been got together in India, were actually on their way to Calcutta, as materials for maturing the results he had achieved. The collections of Mr. Masson were forwarded from Bombay in the John Adam, which reached Calcutta only in the course of the past December. There are of these coins from four to six thousand, besides the contents of several topes, and casts of figures of Budh, with various other remains of the period antecedent to the Muhammadan invasion of Bactria and Afghanistan. The whole of this collection was by order of Government laid upon the table of the Asiatic Society at the meeting of January, 1839; but the members present felt that, in the absence of their late Secretary, and likewise of Capt. Cunningham, Mr. V. Tregear. and Colonel Stacy, there were no persons in Calcutta to whom the examination, arrangement, and report upon the coins and relics could be committed with confidence. They came therefore to the unanimous resolution to recommend their being forwarded without delay to England, where the Honorable Court would have the opportunity of submitting them to the inspection of the late Secretary of the Asiatic Society, jointly with Dr. Wilson, the librarian at the East India House, and so the ends of science and of antiquarian research would be most effectually answered.

The care of this magnificent collection, which is large enough to supply all the museums in Europe, has been kindly undertaken by Mr. Cracroft, a very zealous member of the Asiatic Society, and there is ground for hoping that under his superintendence a catalogue may yet be made before he takes his final departure for England. The articles have come round in bags without any separate lists, and in one bag there are about two thousand copper coins.

But, independently of Mr. Masson's collection, another numbered by thousands has been brought to Calcutta by Dr. McLeod, the Inspector General of Hospitals to Her Majesty's forces in India. This consists partly of coins of all metals, but there are also several seals and gems of different stones cut with a great variety of emblems and devices. All these are the property of Sir A. Burnes, and have arrived

for deposit and custody as well as for inspection; they are therefore still available for the curious, and will continue so until Sir A. Burnes shall send instructions as to their disposal. We cannot ourselves undertake the particular examination of these relics so as to give the detailed description they deserve. A selection from the coins had, however, previously been made at Simla, and those deemed most curious being forwarded by the dawk arrived fortunately before the departure of our Editor. Amongst them is that most curious coin of Dr. Lord, with the head of Eucratides on one side, and of both his parents on the other, a drawing of which is exhibited in plate xlii. From the other selected coins thus transmitted, a plate was prepared by the Editor, which was intended to be illustrative of an article he designed giving in our last October number. The plate remains, and we attach it to this article, that the curious who have followed our Editor to the length of his past researches may see the objects which he deemed worthy of fresh illustration in the field of Indo-Bactrian numismatology. If the 'Herefordshire,' the ship in which he took passage, had touched at Madras, or had put into Mauritius, or had met a vessel at sea, we might have hoped for the comments promised on this, as on two other plates which we also intend to give, and shall separately refer to. But the time approaches when the issue of the last number of our series will be expected, and we can no longer defer the publication, under the doubtful expectation of receiving the desiderated paper from the Cape of Good Hope. Of the coins and gems therefore in Sir Alexander Burnes's collection we can at present make no use, but we hold them in deposit for the examination of others, and to await his further instructions. We must be content at present to give the plate referred to, which it will be seen is numbered xliii., together with such brief reading of the names, as a Tyro of Indian numismatics might be expected with the aid of the alphabets to supply. The plate is of Indo-Bactrian coins of date antecedent to the introduction of Grecian art, with the Grecian alphabet, into the mints of that country, legends are in the ancient No. I character of the then universal Pálí language, with Bactrian characters in some instances on the obverse. or intermixed. The names and emblems on these coins are well worth the study of the learned.

Along with Sir A. Burnes's coins, Dr. McLeod brought to Calcutta a very singular relic obtained by Dr. Lord at Badakhshán, and which is, we believe, destined for the British Museum. The relic in question is an ancient patera of silver, embossed in the interior in very high relief, and representing, with all the usual adjuncts of classic mythology, the procession of Bacchus. The god himself sits in a car drawn by two harnessed females with a drinking cup in his hand. A fat infant, Silenus, stands in front, and there is a female figure sitting on the after corner of the car, which, from its disproportionate size, we imagine to be the carved elbow of the seat on which the god reclines. There are also two winged cupids in attendance, one flying with a wand in his hand, to which a fillet is attached, the other end of which is held by the infant Silenus; and the other on the foreground behind the wheel of the car, as if employed in pushing it on. The car is followed by a dancing Hercules, distinguishable by the club and lion skin. The heads of this figure and of the Bacchus are both wanting. owing probably to their having been of gold, or thought so, while the rest of the patera, being only of silver gilt, has escaped similar violation. The gilding, however, is mostly worn away from long use, and in one part the side of the cup is actually worn through. pendently of the circumstance of the main figure being represented with a cup in hand, its identity with the Grecian Bacchus is proved by the vines circumpendent, and by the figure of a tiger standing prominently out in the fore-ground and drinking out of a wine jar.

This patera is the property of Dr. Lord, who is also the fortunate owner of the double-headed coin of Eucratides, the original apparently from which the plate of a similar coin is given in Dr. Vincent's 'Periplus;' but the double head is there represented as being on both sides of the coin. With a liberality deserving of particular notice, both these unique relics have been gratuitously appropriated by the finder, or are intended to be so, in the manner deemed by him most conducive to the ends of science, Dr. Lord not desiring to retain them as isolated trophies of his own good fortune in the field of research and discovery.

I fear we must not look upon this piece of plate as affording evidence of the state of the arts in Badakhshán, where it was found, at any particular epoch. That it is of high antiquity is quite apparent from the condition of the metal, as well as from the design; but in the Periplus of the Erythrean sea, published amongst Arian's works, it is distinctly stated that ἀργυρώματα, i.e. articles of silver plate, were a staple import from the west, for exchange against the productions of India. At Minnagarh, upon the Indus, it is further stated by the author of that treatise that he himself presented to the rája βαρύτιμα ἀργυρώματα, valuable pieces of plate, in order to secure his favor, and the grant of certain privileges of trade. There is thus reason to believe that the patera must have been brought from Groece or Asia Minor, and either presented in like manner, or sold to some sovereign of Bactria, by a merchant desiring similar privileges of trade in that country. That it has been in use for centuries is evident from the

worn condition it now presents; but for how many it was in use, and for how many it lay treasured in royal or other repositories, is more than may now be conjectured.

### INDO-BACTRIAN COINS.

Specification of coins in plate xliv.

1. OBVERSE: Armed figure standing with a club or spear; no inscription.

REVERSE : Elephant with rider. Bactrian inscription, Rajasa; rest not decipherable.

 Obverse: Woman and deer, with inscription not legible: emblem, etc. Reverse: Tree and mountain; with emblems. [See ante, vol. i., p. 201.]

Obvense: Man and bull; same emblem as No. 2; and Mahdrdjass Mahabhatasa
in old Phil clearly legible, but the name to the left buffles us.

REVERSE: Same device and emblems as No. 2, and Makingiass clearly legible in Bactrian at the bottom.

 Onvense: Same device as No. 2, and same emblem; Rajus Rajust Maghadatasa in old Phli.

REVERSE: Same device and emblems as No. 2; Mahdréjass in Bactrian; the rest not legible.

 A larger coin; the same device on both sides as No. 3; obverse defaced, REVENSE: Mahardjass in Buctrian characters.

6. Onverse: Bull and emblem; no letters.

REVERSE: Same emblems as Nos. 2, 3, and 4, with addition of a wheel: very peculiar.

OBVERSE: Deer and man, with emblems; Rajna Kunandasa in old Pall.

REVERSE: Same as Nos. 2, 3, 4, etc.

8. OBVERSE: Doer and woman; Makdrajasa in Pali.

REVERSE: Same as No 2; no inscription.

 Onverse: Deer and man; Kuwandasya in Palf. Revense: Same as No. 2.

10. Same precisely. Pali inscription, Nandasd, the last letter being an initial x d.

### BUDDHIST SATRAP COINS.

OBVERSE: Horse caparisoned.

REVERSE: Rajosa, in Bactrian, with various marks.

12. OBVERSE: Horse.

Revense: Standing figure with bow. Inscription in Phil, Sarba topasa patamapasa. [Khatropasa P(H?)agdmashasa.]

13. The same indistinct.

14. OHVERSE: The same worn,

REVERSE . Inscription in lines. Tamapasa legible in Phli. [Khatrapasa pageimasa P(H f)agúmashasa.]

15. Nothing distinct.

16. OBVERSE: Horse's tail and hind quarter.

REVERSE: Figure standing. Lagamapasa in Pali.

17, 18, 19. Onvense: Bull.

REVERSE: Standing figure, with inscription Rajmopodosa. Centre one in Bactrian.

 Obverse: Standing figure. Pali inscription, Poghugapasa. [Khatapasa Raja...]

REVERSE: Figure. No inscription.

21. Nothing made out.

22. OBVERSE: Figure in speaking attitude. Rajna Raghundes

23, 24, 25. Not deciphered.

N.B.—These latter are classified as of the Satrap group—first, because of the title Raja or Maharaja not being found in any of them; secondly, because of the names having so evidently an ancient Persian aspect; and lastly, because of the horse emblem, which probably had its origin in the circumstances which attended the accession of Gushtasp, Darius Hystaspes.





# USEFUL TABLES,

HAUSTRATIVE OF

THE COINS, WEIGHTS, AND MEASURES

OF

# BRITISH INDIA;

TOGETHER WITH

CHRONOLOGICAL TABLES AND GENEALOGICAL LISTS,

HAVING REPERSON TO

INDIA AND OTHER KINGDOMS OF ASIA.

BY THE LATE

# JAMES PRINSEP, F.R.S.,

SECRETARY TO THE ASSAUL SOCIETY OF BENGAL.

EDITED,

WITH NOTES, AND ADDITIONAL MATTER,

ВK

# EDWARD THOMAS,

LATE OF THE BENGAL CIVIL SERVICE; MEMBER OF THE ACATIC SOCIETIES OF CALCUTTA, LONDON, AND PARIS.

> LONDON: JOHN MURRAY, ALBEMARLE STREET. 1858.

# PREFACE.

In putting forth this New Edition of Prinsep's Useful Tables,
I may confidently appeal to the sterling value of the work,
and the appreciation with which it has previously been
received by the public in India, as evinced in reprints,
partial and entire, issued at Calcutta and elsewhere.

My task as Editor has been limited to bringing up the Monetary Tables to the latest possible date, the occasional insertion of Notes, and the incorporation of such additional Dynastic Lists as chanced to be accessible in this country. The orthography of the Oriental names has usually been reproduced literatim after the original printed text, wherein they are found to vary to the extent that might have been anticipated consequent on the assemblage of the component materials from the works of various European commentators, who each followed his own method of transliteration, and who, for the most part, wrote before we had arrived at even the present indeterminate stage in the system of the transcription of Eastern tongues which Sir William Jones so meritoriously inaugurated.

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# USEFUL TABLES,

ETC.

# BRITISH INDIAN MONETARY SYSTEM AS ESTABLISHED BY REGULATION VII. OF 1833 [OF THE BENGAL GOVERNMENT.]

Silver is the legally constituted medium of exchange in all money transactions throughout the British Indian possessions. Gold coin is a legal tender, at a fixed value of sixteen rupees for the gold muhr of of Calcutta, and fifteen rupees for the gold muhr of Madras and Bombay; but it is not demandable in payment, and is left to find its current value in the market. Copper coin is only a legal tender at the established rate of sixty-four paisá to the rupee, on payments falling short of one rupee.

The rupee is, then, the unit or standard measure of value throughout India, and by the Regulation lately passed, a perfect assimilation in weight and fineness has been effected in this unit of currency of the three Presidencies, so that the rupee of Upper India, of Madras, and of Bombay are now identical in value. From this uniformity are excepted the three provinces of Bengal Proper, Bahár, and Orissa; in which the Murshidábádí or sikká \* rupee still continues to be the legal currency; but the relation of one coin to the other is now reduced to great simplicity, one Farrukhábád, Madras, or Bombay rupee being precisely equal to fifteen ánás\* sikká.

The following	table	exhibits	the	scheme	of	the	British	Indian
monetary system:								

GOLD MUHR.		RUPER.	ÁNÁ.	PAISÁ.	PAT.
CALCUTTA	1	16	256	1024	3072
MADRAS AND BOMBAY	1	15	240	960	2880
		1	16	64	192
		8228	1	4	12
				1	3

Small shells, called kauris, are also made use of for fractional payments, and are reckoned as follows: but their value is subject to considerable fluctuation, and they are now nearly superseded by the copper currency.

4	Kaurís make	1	Ganda.1
20	Gandas	1	Pan.4
5	Pans.	1	Áná.

# DESCRIPTION OF THE CURRENT COINS.

#### GOLD AND SILVER.

The inscriptions upon the Company's gold and silver coins are in Persian, as follows:

OBVERSE of the sikká rupce struck at the Calcutta mint.

"Defender of the Muhammadan faith, Reflection of Divine excellence, the Emperor Shith 'Alam has struck this coin to be current throughout the seven climes."

The rupee of the Western provinces, coined at the late mints of Farrukhábád and Benáres, and now at the mint of Ságar, bears the same inscription on the obverse. On the reverse the date and place of

coinage are different :--

The several varieties of coin, produced by modifications of weight, standard, or die, from time to time in the Calcutta and subordinate mints of the Bengal Presidency, from their all bearing the same legend and date, are not easily recognized but by an experienced moneychanger. As, however, different regulations regarding deficiency of

weight, etc., apply to the coins of the old and new standard, it is convenient to point out a mode of discriminating them.

The old standard sikká rupee of 1793-1818 has an oblique

milling.

The new standard sikká rupce of 1818-1832 has a straight milling.

The new sikká rupee, struck under the present regulation, has a

plain edge, without milling, and a dotted rim on the face.

The distinctions of the oblique and straight milling apply also to the old and new gold muhr. Of the up-country or Farrukhábád coins :-

 The old standard Farrukhábád rupee (or '45th Sun Lucknow rupee' of Reg. XLV. 1803) has an oblique milling.

The Benáres rupee, coined 1806-1819, has also an oblique milling.

 The new standard Farrukhábád rupec, coined at the Farrukhábád mint, 1819-24, and at the Benares mint, 1819-30, and now at the Ságar mint, has an upright milling.

The Farrukhábád rupee, coined under the new regulation at the

Calcutta mint, has a plain edge, and a plain rim on the face.

The coins struck before 1793, at the old mints of Patna, Murshidábád, and Dacca, the Benares rupce anterior to 1806, and the coins of all the Native independent states, are known by their having no milling. The Company's coin up the country is thus generally called kaldar 'milled, or made by machinery', in contradistinction to the unmilled or native coins, which are fashioned and stamped with the hammer and anvil.

The Madras rupee has a dotted rim on the face, and an indented cord-milling: that coined in Calcutta has an upright milled edge: it has the symbol of a rose on the obverse. The inscriptions are as follows :-

سكة مبارك بادشاه غازي عزيزالدين محمد عالم كير "The auspicious coin of the noble Monarch, Axiz-ud-din Muhammad 'Alamgir!" (the father of Shah 'Alam.)

ضرب ارْکات سنه ۲۰ جلوس میمنت مانوس "Struck at Arkas in the 20th year of his propitious reign."

The Bombay coin has now a plain edge and the following legend:

سكة مبارك شآه عالم بادشاه غازي ١٢١٥

"The auspicious coin of the great Emperor, Shah 'Alam, 1215." ضرب سورت سنه ٦٦ جلوس ميمنت مانوس "Struck at Surat in the 46th year of his propitious reign,"

#### COPPER COINS.

The inscription on the Calcutta paisá is, on the obverse:

سنة جلوس ٣٧ شاه عالم بادشاه "In the 37th year of the reign of the Emperor, Shah 'Alam."

On the reverse : এক্ পাই সিকা يک پاي سگه **एक् पाई सिका** "One ph'i sikka."

In Bengálí, Persian, and Nágarí characters. Serrated rim on the face and plain-edge milling.

The new double-paisá or half-áná piece has on one side merely the words 'half-ana,' in English and Bengali: on the reverse, the same in Persian and Nagari. The pa'i or third of a paisa has in the same manner merely the name 'one pa'i,' which makes it liable to be confounded with the 'one pa'i sikka,' and on this account, perhaps, it has not found ready currency. The natives reckon only sixty-four paisa to the rupee, while English accounts divide the ana into twelve pa'i; to distinguish them, this latter (hitherto an imaginary coin), was called the pa'i of account.

At Madras and Bombay an English device has been introduced for the copper coinage; on one side, the East India Company's arms; on the other, in the Bombay coin, a pair of scales, surmounted with the name of the coin in English; below, the word , ] se 'adal, 'justice,' in Arabic, and the Hijra date also in Arabic numerals. The Madras paisá coined in England in 1803, has, on the reverse, its value according to the old system 'XX. cash; '1 and in Persian, بيست كاس چهار "bist kás chahár falús ast, 'twenty kás make four fals.' It weighs 180 grains (one tolá\*), and the half and quarter in proportion.

The principal object in this place being to shew the present state of the currency and the existing mint regulations, it is unnecessary to detail the various alterations which have been made from time to time in the monetary systems of the three Presidencies, of which a sketch will hereafter be given as an introduction to the General Table of Indian Coins.

The adoption of a general pictorial impression for all the coins of the British possessions in India, in lieu of the present anomalous system, has frequently engaged the attention of the Government here and at home; and it is hoped, now that the new mints of Calcutta and Bombay are perfectly capable of executing such a design, and the prior measure of equalizing the standards of the three Presidencies has been carried into effect, that the unhappy tissue of mis-statements as to

। s को स्था or कीस kainsya or kans. ः s भू told. (तीच)

names, places, and dates, exposed in the above list, will give place to a device at once worthy of the British name, and affording better security against fraudulent imitation.

### WEIGHT AND ASSAY OF THE COINS.

#### GOLD COINS.

The privilege of coining gold in the Bengal Presidency is limited to the mint of Calcutta, where gold muhrs of two standards are now coined: the ashrafi1 or Murshidábád gold muhr, which maintains a high degree of purity (991 touch) has a weight of 190 895 grains troy. The new standard gold muhr of 1819 contains one-twelfth of alloy. The absolute quantity of pure motal was then reduced in a trifling degree to adjust the ratio of its value to that of silver as fifteen to one." The new gold muhr therefore weighs sixteen-fifteenths of a rupee, and passes by authority for sixteen rupees, but the ratio of gold to silver has been of late years higher in the Calcutta market, especially for the purer coins, so that the new muhr generally passes for sixteen

aelrafi. اشرفی ۱۳

1 In the English coins the ratio is 14.287 to 1-in the French money as 15.5 to 1.

[In continuation of this subject, I extract from the 'Numismatic Chronicle' some remarks of my own, in regard to the relative value of gold and silver in India, at the commencement of the Meghul rule: 'The authoritative reform of the coinage, effected by Shir Shah (a.s. 946-952-a.p. 1539 to 1545), appears by internal evidence to have been accompanied by a revision and re-adjustment of the relative value of the lower metals, silver and copper. There are no positive data to show at what rate silver exchanged against gold in the time of Shir Shih; but an examina-tion of Abul-fazl's description of the coin rates of the great Akbar, who succeeded to tion of Abûl-fazi's description of the coin rates of the great Akbar, who succeeded to the throne in 1556, A.D., discloses the very unexpected proportion of gold to silver as 1 to 9.4! I obtain this result from a comparison of the intrinsic contents assigned to four several descriptions of gold coins in the 'Ayin-i Akbari,' as contrusted with the corresponding total weight of the silver money defined by the same authority as their exchangeable value. I understand both gold and silver to have been pure. Actual assay shows Akbar's gold coins to have been totally unalloyed, and Abûl-fazi himself directly asserts that the silver used in his master's coinage was pure.

I append an outline of my data on this head:-

1st.—Chagal, weight in gold T. 3, M. 0, R. 51—30 Rs. of 111 mashas each : 549,84 :: 172.5 × 30 (5175.0) : 1 :: 9.4118.

2nd.—Áftábi, gold, weight T. 1, M. 2, R. 42—12 Rs. : 218.90 :: 172.5 × 12 (2070-0) : 1 :: 9,4563.

3rd - Hahi, gold, weight M. 12, R. 12-10 Rs. : 183.28 :: 172.5 × 10 (1725.0) : 1::9,4118.

4th,-'Adl Gutkah, gold, weight 11 mashas-9 Rs. : 165 :: 172.5 × 9 (1552-5) : 1 :: 9.40909.

(The common tolk of 180 gr., masha of 15 gr., and rati of 1.875 gr. have been used in these calculations).

Annexed are the relative proportions of these several denominations of coins, as given by Abúl-fazl—extracted verbatim from an excellent MS, of his 'Ayin-i Akbari.' And to complete the original details of the entire subject for those who may desire to to seventeen, and the old gold muhr for seventeen to eighteen, sikká rupees. When originally coined, both of these moneys were at a discount.

The proportion of fifteen to one is also adopted in the gold rupees of Madras and Bombay, which are coined of the same weight as the silver money of those Presidencies, and pass current for fifteen silver rupees.

The weights and purity of the gold coins are as follows:-

BENCMINATION.	Pare gold.	Alloy.	Weight in gold,	Weight in tolgs,	Legal value,
Old Calcutta muhr, with ) an oblique milled edge	189,4037	1.4913	190,895	1.060	) 16 sikká
New standard gold muhr, i with a straight milling	187.651	17.059	204.710	1.137	rupoes.
Madras and Bombay new	165	16	180	1,000	15 rupecs.

examine them, I also subjoin the Rupse equivalents, further determining the actual value of the silver coins.

چگل بضم چیم وکاف فارسے وسکون لام چھار گوشہ سہ تولچہ پنیر سرخ و ربع قیمت سے روپیہ

و پنج سن و ربع قیمت سے روپیہ آفتاہے گرد۔ ہوزن یکتولچہ دو ماشہ و پنج سن ربع کم • بھا • دوازدہ روپیہ

الهي [لعل جلالي and] گرد • دوازده ماشه دو سرخ ربع كم آفتاب منقوش ارج ده روپيه

عدل گلکه بفتے عین و سکون دال ولام و ضم کاف فارسے و سکون تاي فوقائے هندي و فتے کاف وها، مکتوب یازده ماشکي قیمت نه روپیه روپیه سیمین نقدیست گرد یازده و نیم ماشکي در زمان شیر خان پدید آمد \* \* از چهل دام اگرچه نرخ افزون و کم شود لیکن در مواجب این قیمب اعتبار رود

جلاله چهارگوشه . . در وزن و نقش چون نخستین روپیه سه گونه روائ داشت اول چهار گوشه پاک سیم بوزن یازده و نیم ماشه جلاله نام ارز چهل دام . . . . . . . . . . . .

<sup>&</sup>lt;sup>1</sup> This coin is inserted, contrary to rule, because its fabrication is still permitted at the Calcutta mint, for the convenience of the merchants; as it bears a higher value, preportionally, in the market than the new muhr.

Half and quarter gold muhrs are coined of proportionate weight to the above.

The pagoda of Madras and the old gold muhr of Bombay will find their place in the General Table of Coins.

#### SILVER COINS.

The weight, fineness, and relative value of the silver coins established by the new regulation are as follows:—

DENOMINATION.	Pure eliver. Troy grains,	Alloy. Troy grains,	Weight in troy grains.	Weight in tolds.
Calcutta sikkā rupee Farrukhābād,Sonat, <sup>2</sup> Sā- )	176	16	192	1.0666
gar, Madras, or Bombay	165	15	180	1,000

Eight-áná pieces (áth-anni<sup>2</sup>) and four-áná pieces (súki<sup>3</sup> or chauanni<sup>4</sup>) are struck of proportionate weight to each of the above coins.

The standard quality of the metal is eleven-twelfths of pure silver to one-twelfth of alloy.

The conversion of sikká into Farrukhábád rupees and vice versa may be effected in the simplest manner by the following rules, which obviate the necessity of providing tables for the purpose.

Rule First.—To convert Farrukhábád rupces into sikká rupces:— Deduct one-sixteenth of the amount of the Farrukhábád rupces from that amount, and the result will be their equivalent in sikkás.

RULE SECOND.—To convert sikká rupees into Farrukhábád, Madras, or Bombay rupees:—Add one-fifteenth of the amount of the sikkás to that amount, and the result will be the equivalent in Farrukhábád, Madras, or Bombay rupees.

To avoid confusion here, the weights and values of the former currencies of the Company, which differ in a small degree from the foregoing scale, as well as those of the existing currencies of the Native States, will be inserted in the General Table before alluded to.

All silver money of the new standard (with a straight milling or a plain edge), is considered by law as of full weight until it has lost by wear or otherwise two pá'í in the rupee; or, in round terms, one per cent.

Coins of the old standard (with the oblique milling) remain subject to the provision of Regulation LXI., 1795, which allows them to remain a legal tender until they have lost only six anas per cent.

The limits of weight are, therefore, as follows :-

	Original weight.	Allowance for wear,	Minimum weight.	Min. weight of 100 rupees.
Old sikkå or Murshidabåd rupee	179,666 grs.	6 ånås per et.	179 grs.	99,44 tolás
New sikkā rupee	192 grs.	2 ph'i p. rup.		
Farrukhábád, old rupce	173 grs.	6 ánás p. ct.	172,352	95.75 tolas
" new rupee	180 grs.	2 ph'i p. rup.	178,125	99. tolás

Light-weight rupees are received by Government officers as bullion, the deficiency from standard weight being made good by the payer.

#### COPPER COINS.

The copper coins of Bengal and Bombay are now equalized in weight, and are as follows:—

The Court of the C	grains.		Value,
The half-ana piece	200	6	ph'i of account
The paist (marked one ph'i sikks)	100	3	ditto
The pa'i of account	831	1	ditto

By Regulation XXV. of 1817, Sect. 5, copper paisá, struck at the Benares mint, weighing 98½ grains, which were intended at first (vide Reg. VII. 1814), for circulation in the province of Benares only, and were distinguished with a trident or trisúl, the symbol of Siva, were made current throughout the Bengal provinces at par with the Calcutta and Farrukhábád paisá.

### COINAGE DUTY OR SEIGNOBAGE.

All the Company's mints are open to the reception of gold 1 and silver bullion for coinage on private account. The following is the course of proceeding adopted in the Calcutta mint:—after examination by the processes of cutting and burning, to ascertain that there is no fraudulent admixture, the proprietor takes a receipt from the Mint-Master for the weight of his bullion.—A specimen is then taken for assay, and after that operation the mint receipt is exchanged, at the Assay Office, for a certificate of the standard value of the bullion in gold or silver money. This certificate is convertible into cash at the Treasury as soon as the new coin may be transmitted thither from the mint.

<sup>े</sup> Except the Sagar Mint, which coins silver only.

A deduction is made from the assay produce of bullion to cover the expenses of coinage, which vary at the different mints as follows:

	Om Gold Bullion.	On Silver Bullion.
At the Calcutta mint	2 per cent.	2 per cent.
At the Sagar mint	2 ditto.	2 ditto.
[If required in halves and quarter	s, an additional	duty of one per cent, is levied at
these Mints.]		
At the Madras mint <sup>1</sup>	3 per cent. 2 ditto.	4 per cent. and 2 per cent.

On the re-coinage of rupees struck at the Company's mints of the Bengal Presidency, a charge of one per cent. only is levied.

The rates of seignorage at Bombay and Madras include the charge for refinage; for which a separate charge is made in the Calcutta and Ságar mints, on under-standard bullion only, at the rate of 0.4 per cent. per pennyweight of worseness in the assay: (unless such inferior bullion is required for the purposes of alligation at the mint, when the charge may be remitted on the authority of the Mint Master).

The	following	is :	a table	of	refined	charges	<del></del>
					a . $acvac$	31/31/11:52	

Assay.	Refluing charge per cent.	Assay.	Refining charge per cent.	Assay.	Befining charge per cent.	Assay.	Redning charge per cent.	
dieta.		danta	0.00	dects.	3000	dute.		
01 Wo.	0.02	61 Wo.	0.26	124 Wo.	0,50	18 Wo.	0.74	
1 Wo.	0.04	7 Wo.	0.28	13 Wo.	0.52	19 Wo.	0.76	
11 Wo.	0.06	71 Wo.	0.30	13 Wo.	0.54	19 Wo.	0.78	
2 Wo.	0.08	8 Wo.	0.32	14 Wo.	0.56	20 Wo.	0.80	
21 Wo.	0.10	84 Wo.	0.34	145 Wo.	0.58	201 Wo.	0.82	
3 Wo.	0.12	9 Wo.	0.36	15 Wo.	0.60	21 Wo.	0.84	
31 Wo.	0.14	94 Wo.	0.38	151 Wo.	0.62	21# Wo.	0.86	
4 Wo.	0.16	10 We.	0.40	16 Wo.	0.64	22 Wo.	0.88	
41 Wo.	0.18	10 Wo.	0.42	161 Wo.	0.66	224 Wo.	0.90	
5 Wo.	0.20	11 Wo.	0.44	17 Wo.	0.68	23 Wo.	0.92	
51 Wo.	0.22	11 Wo.	0.46	175 Wo.	0.70	231 Wo.	0.94	
6 Wo.	0.24	12 Wo.	0.48	18 Wo.	0.72	24 Wo.	0.96	

And so on for silver of inferior quality. By the practice of the Calcutta mint, the charge for refinage is usually remitted up to 6 Wo.; at the Sagar mint, it is levied on all denominations of bullion inferior to standard.

The next two tables, for calculating the intrinsic or assay produce of bullion, are applicable to all the Company's mints, where the tolá weight has been adopted.

¹ These two are inserted on the authority of Kelly's 'Cambist;' it seems very advisable that the charges should be equalized at the three Presidency mints, as otherwise the desired uniformity of value cannot be maintained.

Table of the Intrinsic or Assay Produce of Silver Bullion in Farrukhábád and Calcutta rupess, from the 1st of May, 1833.

Weight of building in tolds or new weight.	Assay Report.	Touch, or fine silver, in 100 parts.	Produce in Parro- khabdd, Madras, or Bombay Ba.	Produce in Calcutta or sikkå rapeos.	Weight of bullion in tolds or new weight,	Assay Report.	Touch, or fine silver, in 100 parts.	Produce in Farru- knabad, Madras, or Bombay rupees.	Produce in Calcutts or stkki rapees.
	diete.	100.000	****			dieta.	80 K89	97 797	91.689
100	20 Br. 194 Br.	99,792	109.091	102,278	100	5 Wo.	89.583 89.375	97.727 97.500	91.406
**	18 Br.	99.583	108.636	101.846			89.167	97.278	91.193
10	194 Br.	99.375	108,409	101.683	"	64 Wo.	88,968	97.045	90.980
19	18 Br.	99.167	108,182	101.431	- 22	7 Wo.	88.750 88.542	96.818	90.767
20	171 Br.	98.958	107.955	101,208		74 Wa.	88.548	96.591	99,554
21	17 Br.	98,750	107.727 107.500	100.994	**		88.333	96 364	90.341
	161 Br.	98.542	107,500	100.781	10	81 Wo.	97 917	96.136 95.909	90.127 89.915
21	16 Br. 15t Br.	98.333 98.125	107.273	100.568	10	9 Wo.	87.708	95,682	89.702
	15 Br.	97.917	106,818	100.142		10 Wo.	87.500	95.455	89.489
	141 Br.	97.708	106.591	99.929	20	101 Wo.	87.293	95.227	89.275
"	14 Br.	97.500	106,364	99.716	22	11 Wo.	87.084	95.000	89.052
**	131 Br.	97.292	106.136	99,502	194	111 Wo.		94 773	88.850
29	13 Br.	97.053	105.909	99,290	100/		86,667	94 545 94 318	85.636
	121 Br.	96.875	105.683	99.077		13 Wo.	86,250	94.091	88.210
30	12 Br.	96,667	105,455	98,864	300	134 Wo.		93,864	87.998
20	111 Br. 11 Br.	96,250	105.000	98.487	29/	14 Wo.	85.834	98.636	87.784
22	10} Br.	96,042	104.773	98.225		141 Wo.		98.409	87.571
21	10 Br.	96,833	104.545	98.011			85.417	98.182	87.858
33	91 Br.	95.625	104.318	97.798	- 00	151 Wo.		92.955	87.145
23	9 Br.	95.417	104.091	97.585	10	16 Wa	85,000	92.727 92.500	86.932 86.719
	8t Br.	95,208	103.864	97.372		161 Wo 17 Wo	84 883	92,273	86.506
31	8 Br.	95,000	103,636	97.159	-	174 Wo.	84.375	92.045	86.292
29	71 Br. 7 Br.	94.792	103.183	96.733	11	18 Wo	84.167	91.818	86.079
	64 Br.	94.375	102.955	96.520	**	191 Wo.	83.058	91.591	85.867
23	6 Br.	94.167	103.727	96.306	10	19 Wo.	83,750	91.364	85.654
"	51 Br.	93.958	102.500	96.094	10	19₺ Wo	83.542	91.136	85.440
	5 Br.	93.750	102.273	95.881	100	20 Wo	83.333	90.900	85.227
**	41 Br.	98.542	102.045	95.667	225	201 Wo 21 Wo	99 017	90.682	85.015
**	4 Br.	93,833	101.818	95,454		211 Wo	82.708	90.227	84.588
**	3½ Br. 3 Br.	93.125 92.917	101.591	95.029	20	22 Wo		90.000	84.374
**	3 Br. 21 Br.	92.708	101.136	94.815		22} Wo		89.773	84.162
**	2 Br.	92.500	100.909	94.602		28 Wo	82.083	89.545	83.955
	11 Br.	92.293	100.682	94.389	"	281 Wo	81.875	89.318	83,730
**	1 Br.	92,083	100.455	94.176	"	24 Wo	81.667	89.091	83.423
30	⅓ Br.	91.875	100.227	98.968		241 Wo	81,458	88,864	88,310
70	Standard		100.000	93.750	.,	25 Wo		88,636	83.007
**	1 Wo.	91.458	99.773	93.537 93.323	"	251 Wo 26 Wo		88.409 88 183	82 671
30	1 Wo.	91.250 91.042	99.545 99.318	93.111	n	261 Wo	80.625	87.955	82 468
#	14 Wo. 2 Wo.	90.833	99,091	93.898		27 Wo	80.417	87 727	82 244
20	21 Wo.	90,625	98.864	92,685	"	274 Wo		87 727 87.500	82,032
**	3 Wo.	90.417	98.635	92.471	15	28 Wo	.180,000	87.273	81.819
89	34 Wo.	90,208	98.409	92,258	19	285 Wo	79.793	87.045	81.600
*	4 Wa.	90.000	98.182	92.046	10	229 XX O	170,000	86.818	81.39
	41 Wo.	89.792	97.965	91,833	100	294 WO	79.870	86.591	81.17
11	2006.0000	1000000	100000	1000000	1	130 Wo	479.167	86.864	80.97

Table of the Intrinsic or Assay Produce of Gold Bullion in Calcutta gold muhrs and Bombay gold rupecs.

Weight of ballion in tolik.	Assay in carsis and areins,	Touch, or pure gold in 100 parts.	Intrinsic produce in telda, or in Madrie and Ben- bay gold multer.	Produce in new Calcutta gold muhra of 204,710 grafin.	Produce in old sold muhrs of 190.875 grains.	Weight of bullion in tolda.	Assay in carate and grains.	Touch, or pure gold in 100 parts.	Intrinsis produce in tolds, er in Madrie and Bom- bay gold mahre.	Produce in new Oulcutta poid multipe of 304,710 gradius
100	0. p. 2 0 Br. 1 33 Br.	100.000 99.740	109.091	95.923	95.085	100	1 0 Wo	87.500	95.454	83.831
10	1 3 Br.	99,479	108.861 108.528	95.674 95.423	94.787		1 01 Wo.	87.339	95.170	83.683
:	1 34 Br.	99.219	108.239	95.173	94,293	10	1 0 Wa. 1 0 Wa.	86.719	94,886	83.438 83.183
10	1 3 Br.	98.958	107.954	94.934	94.045	10	1 1 Wo.	86,458	94.318	82,983
10	1 24 Br.	98,698	107.670	94.674	93,798	-	1 11 Wo.	86,198	94.084	82,688
**	1 2 Br.	98,487	107.386	94.424	93.550	"	1 11 Wo.	85.937	93,750	83,484
"	1 21 Br.	98.177	107.102	94.174	98.808		1 17 Wo.	85.677	93.466	82,184
	1 2 Br.	97.917	106.818	98.934	93.055	-	1 2 Wo.	85.416	93,182	81.984
**	1 14 Br.	97.656	106.534	93.675	98.808	10	1 21 Wo.	85.156	92,898	81.684
11	I la Br.	97.896	106.250	98.425	93.560	10	1 24 Wo.	84,896	92.614	81.484
*	1 14 Br. 1 1 Br.	97.135	105.966	98.175	92.313		1 27 Wo	84,635	99,329	81.185
**	1 04 Br	96.875 96.615	105,682	92.925	92.065	30		84.375	92.045	80,935
"	1 03 Br. 1 04 Br.	96.854	105.398 105.114	92.426	91.818 91.570	#	1 3t Wo.	09 054	91.761	80.686
:	1 0 Br.	96.094	104.829	92.176	91.323	12	1 31 Wo.		91.193	80.185
	1 0 Br.	95.838	194,545	91.996	91.075	-0	2 0 Wo.	99 111	90,909	79.936
"	0 31 Br.	95.578	104.261	91.676	24.04.0	OH.	2 01 Wo.	83.073	90.625	79,686
,,	0 34 Br.	95.318	103.978	91.426	77	"	2 01 Wa	88.819	90.341	79.436
**	0 34 Br.	95,042	103.693	91.177	old standard	'n	2 0 Wo.	83,552	90.057	79.186
	0 3 Br.	94.792	103,409	90.927	3		2 1 Wo.	82.291	89.773	78.930
	0 23 Br.	94.531	103.125	90.677	# -	**	2 14 Wo.	82.631	89.489	78.687
.11	0 21 Br.	94.271	102.841	90.426	-	10	2 11 Wo.	81.770	89.204	78.437
*	0 24 Br.	94.010	162,557	90.177	9	**	2 11 Wo.	81.510	88.920	78.187
.,	0 2 Br.	98.750	102,278	89.928	ij		2 2 Wo.	81,250	88.636	77.987
*	0 14 Br.	93,489	101.989	89.678	8	**	2 21 Wo.	80.990	88.852	77.687
"	0 11 Br. 0 12 Br.	98.229	101.704	89.428	-8	10	2 2 Wo.	80.729	88.068	77.438
	0 1 Br.	92,969 92,708	101.420 101.136	89.178 88.928	8	30	2 22 Wo. 2 8 Wo.	90,409	87.784	77.188
"	0 0} Br.	92.448	100.852	88.679	2	**	2 3 Wo.	80.108	87.500 87.216	76.938 76.688
	0 0 Br.	92.187	100.568	88.429	.9		2 St Wo.	79.687	86.932	76.438
	0 01 Br.	91.927	100.284	88.179	age a	"	2 31 Wo.		86.648	76.189
,	Standard.	91,667	100.000	87.929	receivable for coinage muhrs.		3 0 Wo.	79 166	86.864	75.939
	0 01 Wo.	91,406	99.716	87.679	25		3 01 Wo.		86.079	75.689
	0 04 Wo.	91.156	99.432	87.430	nos		3 04 Wo.	78 646	85.795	75.439
	0 02 Wo. 0 1 Wo.	90.886	99.148	87.180			3 01 Wo. 3 1 Wo.	78.385	85.511	75.189
	0 1 Wo.	90,625	98,864	86.920	-28		3 1 Wo.	78.125	85.227	74.940
	0 11 Wo.	90.365	98.579	86,680	20	**	3 14 Wo.	77.864	84.943	74.694 74.440
	0 11 Wo.	90.104	98,295	86.430	1 12		3 14 Wo. 3 14 Wo.	77.604	84.659	74.440
20	0 12 Wo.	89.844	98,011	86.180	8		VORTO CONTRACTOR	100000000000000000000000000000000000000	84.375	74.190
23	0 2 Wo.	80.588	97.727	85.931	inferior quality is		3 2 Wo.	77.083	84.001	73.940
30	0 24 Wo.	89.823	97.448	85.681	a a	**	3 24 Wo.	76.823	83.807	78.691
*	0 22 Wo. 0 22 Wo.	89,062	97.159 96.875	85.431	豆	10	8 2 We.	76.363	83.523	78.441
80	0 8 Wa.	88.541	96.591	84.932	*	19	3 21 Wo. 3 3 Wo.	76.002	83,239	73.191
50	0 81 Wa.	88.281	96.807	84.682	75		3 3 We. 3 3 We.	76.042	82.954	72,941
70	0 31 Wo.	88.021	96.023	84.482	Gold of	"	3 31 Wo.	75.591	82,886	72,601 72,442
-	0 3 Wo. 0 3 Wo.	87.760	95.789	84.182	.0		3 3 Wo.	75.260	82,102	72,193
-						- 11	4 0 Wo.	75,000		71.943

The refining charges on under-standard gold as applied at Calcutta are as follows:—

	ear,	gv.		car. gr.	
From	. 0	01 Wo.	to	1 1 Wo.	per cent,
From		1 Wo.	to	2 2 Wo.	1 per cent.
From		21 Wo.	to	3 3 Wo.	11 per cent.
From	. 3	3 Wo.	to	5 0 Wo.	2 per cent.
From	. 5	01 Wo.	to	7 2 Wo.	21 per cent., etc.

For old standard muhrs, merchants are obliged to bring their gold already refined to the requisite degree of purity.

The produce of any weight, in tolás, of assayed bullion is found by multiplying it by the number opposite to the assay in the proper column (of sikká or Farrukhábád rupees, or new or gold muhrs, as the case may be), and dividing by 100. To find the pure contents, the number in the third column 'or touch,' must be taken as the multiplier. For example:—

- I. 5432 tolás of refined cake silver reported, on assay, to be 154 dwts. Br. yield in sikká rupces,  $5432 \times 100.355 \div 100 = 5451.254$ , or sá. rupces 5451 4 1.
- II. 1200 tolás of dollars at 5 Wo. contain of pure silver 1200 × 89,583 + 100 = 1075 tolás pure.
- III, 100 twenty franc-pieces, weighing 55.319 telfs, at 0  $1_2^1$  c, grs. Wo. yield 55.319  $\times$  86.430  $\rightarrow$  100  $\Rightarrow$  47.812 new gold muhrs.

These tables, and, indeed, all that are inserted in the present paper, express the fractions of the rupee, or of the tolá, in decimals. For converting this expression into the ordinary division of ánás and pá'ís, and vice versa, the following table will be found very convenient, and of constant application in monetary calculations.

Table for reducing Anás and Pá'is into decimal parts of a Rupes. 1 áná = 0.0625.

Ánás.	0	1	2	3	4	5	6	7	8	9	10	11 pái
0	.0000	.0052	.0104	0156	.0208	.0260	.0312	.0365	.0417	0469	.0521	0573
1	.0625	.0677	.0729	.0781	.0833	.0885	0937	.0990	.1042	1094	.1146	1198
2					.1458							
3	.1875	.1927	.1979	.2031	.2083	.2135	.2187	,2240	.2292	.2344	.2396	.2448
4	.2500	.2552	.2604	.2656	.2708	.2760	2812	.2864	.2917	2969	3021	3073
5	.3125	.3177	.3229	.3281	.3333	.3385	.3437	.3489	.3542	3594	3646	3698
6	.3750	.3802	.3854	.3906	.3958	4010	4062	.4115	.4167	4219	4271	4323
7	.4376	.4427	.4479	.4531	.4583	.4635	.4687	.4740	.4792	.4844	4896	4948
8	.5000	.5052	.5104	.5156	,5208	.5260	.5312	.5365	.5417	5469	5521	5573
9		.5677	.5729	.5781	.5833	5885	5937	.5990	.6042	6094	6146	.6198
10	.6250	6302	.6354	.6406	.6458	6510	.6562	.6615	.6667	6719	6771	6823
11	.6875	6927	.6979	.7031	.7083	.7135	.7187	.7240	.7292	7344	7396	.7448
12	.7500	7552	7004	7656	.7708	.7760	.7812	7865	7917	7969	8021	8073
13					.8333							
14	.8750	.8802	.8854	.8906	,8958	,9010	.9062	.9115	.9167	9219	.9270	.9323
15					.9583							

#### EXCHANGES.

For the conversion of the rupee into the equivalent currency of other nations, it is necessary to take into consideration the fluctuating relative value of the precious metals inter se, from the circumstance of gold being in some, and silver in others, the legal medium of circulation.

It is also necessary to take account of the mint charge for coining at each place, which adds a fictitious value to the local coin. The 'par of exchange' is, for these reasons, a somewhat ambiguous term, requiring to be distinguished under two more definite denominations. 1st, the 'intrinsic par,' which represents that case in which the pure metal contained in the parallel denominations of coins is equal. 2nd, the 'commercial par,' or that case in which the current value of the coin at each place (after deducting the seignorage leviable for coinage) is equal: or in other words, 'two sums of money of different countries are commercially at par, while they can purchase an equal quantity of the same kind of pure metal.'

Thus, if silver be taken from India to England, it must be sold to a bullion merchant at the market price, the proprietor receiving payment in gold (or notes convertible into it). The London mint is closed against the importer of silver; which metal has not, therefore, a minimum value in the English market fixed by the mint price: although it has so in Calcutta, where it may always be converted into coin at a charge of two per cent. On the other hand, if a remittance in gold be made from this country to England, its out-turn there is known and fixed: each new Calcutta gold muhr being convertible into 1.66 or 1\frac{3}{3} sovereigns nearly; but the price of the gold muhr fluctuates as considerably in India as that of silver does in England, the natural tendency of commerce being to bring to an equilibrium the operations of exchange in the two metals.

The exchange between England and India has, therefore, a two-fold expression; for silver, the price of the sikká rupee in shillings and pence:—for gold, the price of the sovereign in rupees. To calculate the out-turn of a bullion remittance in either metal, recourse may be had to the following

#### TABLES OF ENGLISH AND INDIAN EXCHANGES.

The data for the calculation of these tables are :-

1st. One man<sup>2</sup> (or 100 lbs. troy) of silver (one-twelfth alloy) is coined into 3,200 Farrukhábád rupees, or into 3,000 sikká rupees, of which sixty-four and sixty respectively are taken as mint duty, being at the rate of two per cent.

Kelly's 'Cambist,' iii., 13. 2 A ... man or mann. H 7000

2nd. 100lbs. troy of English standard silver (18-240ths alloy) are coined into 6,600 shillings, of which 400 are taken as seignorage or mint duty, being 4s. per lb., or nearly six per cent.; but the mint is not open to the holders of silver bullion, which is only purchased through the bank when required for coinage.

3rd. The sovereign (1-12th alloy) weighs 123.25 grains troy, and no duty is charged on its coinage. 100 lbs. of pure gold yields 5098.3 sovereigns, = 3069.5 new gold muhrs, = 3041.4 old gold muhrs, = 3490.9 Madras and Bombay muhrs.

Table showing the produce of 100 sikká rupees and of 1 sikká rupes in shillings sterling at London, for different quotations of the price of silver in the London price current.

At the London price of silver per troy ounce.		per troy	100 sikkā rupces will produce		change kká rupec,	Remarks.
at	.5555555444444444444444444444444444444	d, 6 6 5 4 3 2 1 0 1: 10 9 8	218,018 214,714 211,411 208,108 204,805 201,501 198,198 194,895 191,591 188,288 184,984 181,681 178,378	2 2 2 2 2 2 2 1 1 1 1 1 1	d. 2.2 1.8 1.4 1.0 0.6 0.2 11.8 11.4 11.0 10.6 10.2 9.8 9.4	Intrinsic par of coins. (2s. 1.64d.) Culcutia mint price of silver. (2s. 1.07d.) commer- cial pure exchange (2s. 0.58d.) London mint price of silver. (5s. 2d.)

Table showing the produce of 100 Farrukhábád, Ságar, Sonat, Madras, or Bombay rupees (or 100 tolás) of Bengal standard silver (onetwelfth alloy), in shillings and the consequent rate of exchange.

Loudon price of	100 Farrakhábád,	Exchange	Bemarka.
silver per troy	Madras, or Bombay	per Farrakhábád	
ounce.	rupces will praduce	rupee.	
5 6 5 5 5 5 4 5 3 5 2 5 1 5 0 4 11 4 10 4 9 4 8 4 7 4 6	Shiffings, 204,390 201,293 198,196 195,099 192,002 188,905 185,809 182,712 179,615 176,518 173,421 170,324 167,228	2 0,5 2 0.15 1 11.8 1 11.5 1 11.1 1 10.7 1 10.3 1 10.0 1 9.6 1 9.2 1 8.8 1 8.44 1 8.06	Intrinsic par of coins.  (2s. 0.04st.) Calcutta mint price of silver.  (1s.11.51st.) commercial par of exchange.  (1s. 11.04st.) London mint price of silver.  (5s. 2d.)

The exchange which a bullion remittance from England to India will yield at the London prices of the first column may be found by adding two per cent. to the columns of produce: thus, at 5s. an ounce, 185.8+3.7—189.5 shillings invested in silver bullion, will produce 100 Farrukhábád rupees, and give an exchange of 1s. 10\frac{3}{4}d. per Farrukhábád rupee. The same remark applies to the above table for sikká rupee exchanges.

Table showing the produce of a remittance to London in gold bullion or coin, and the corresponding exchange in Calcutta, Farrukhábád, Madras, and Bombay rupees.

Gold		Calcutta price of English Sovereign.	Calcutta price of standard Gold Bullion per 100 tolds.	Intrinsic produce of 100 Sagar rupees thus invested in England.	Intrinsic produce of 100 Farrakhi- bid Madras, or Bombay rupees ditto.	pe	change r sikká upec,	Parre Mi nod	change per akbábád adras, Bombay upos,
Re. 16	án.	84. Ba. 9.633	84. Rs. 1406.868	Shillings. 207.616	Shillings. 194,640	2	d. 0.91	1	11.35
16	2	9.708	1417.859	206,006	193 131	2	0.72	1	11.17
16	4	9.783	1428.850	204 422	191,646	2	0.52	1	10,99
16	6	9.858	1439,841	202.861	190,183	2	0.33	1	10.82
16	8	9.934	1450.832	201.325	188,743	2	0.15	1	10.64
16	10	10.009	1461.823	199.811	187,323	1	11.97	1	10.48
16	12	10 084	1472,814	198,329	185,924	1	11.79	1	10.31
16	14	10.160	1483,805	196,850	184,547	1	11,62	1	10.16
17	0	10.285	1494.797	195,403	183,190	1	11.44	1	9.98
17	2	10,310	1505,788	193.977	181.853	1	11,27	1	9.82
17	4	10.385	1516.779	192,571	180,535	1	11,10	1	9.66
17	6	10,462	1527.770	191.185	179,236	1	10,94	1	9.50
17	8	10,536	1538.761	189,820	177.956	1	10.77	1	9.35

[The old Calcutta gold muhr is omitted in this table, because it bears an artificial value, 14 or 15 anas higher than the new standard muhr.]

The above tables give intrinsic results; that is, they exclude all calculation of charges, insurance, freight, commission, etc., which are of a variable nature. It may be generally assumed, however, that four per cent., or one penny in the rupee, will cover all expenses of remittance to England, from which may be deducted a saving of six months' interest, when comparing the transaction with mercantile bills of twelve months' date.

The par of exchange with other countries may be estimated from the intrinsic and mint produce of their coins, thus:—assuming the Spanish dollar to weigh 416 grains troy, and to be five dwts. worse in assay, we have for

#### SPAIN AND AMERICA.

160 Dollans = 231,111 tolas in weight, = 225.858 Pd. rupees, or deducting duty { 221.341 Fd. rupees. 211,742 sikká rupees, } of 2 per cent. { 207.508 sikká Rs. The Spanish dollar forms also the currency of the Straits of Malacca

and of Manilla; and it is extensively known in the colonies of England, Ceylon, the Cape, Australia, etc.

For the British colonial possessions, however, an Order of Council was promulgated on the 23rd March, 1825, extending to them the circulation of British silver and copper money, and directing all public accounts to be kept therein. Where the dollar was, either by law, fact, or practice, still a legal tender, it was to be accounted equivalent to 4s. 4d., and vice versa. For the Cape of Good Hope, where the circulation consisted of paper rix-dollars;—and Ceylon, where it consisted of silver and paper rix-dollars, as well as a variety of other coins;—it was provided that a tender and payment of 1s. 6d. in British silver money should be equivalent to the rix-dollar. The sikká rupee was to be allowed circulation at 2s. 1d. and that of Bombay at 1s. 11d., and the five-franc piece at 4s. These regulations are still in force in Ceylon, Australia, Van Diemen's Land, the Cape, Mauritius, and St. Helena.

#### FRANCE.

The French kilogramme of standard silver (1-10th alloy) is coined into 200 francs, and the kilogramme weighs 85.744 tolás; therefore

The coinage duty on silver at Paris is 1 per cent., or per cent. less than in India; hence it will be found that,

100 sikká rupees realize almost precisely 250 francs at the Paris mint.

Minted gold in France is worth 15½ its weight of minted silver, or
the kilogramme is coined into 155 napoleons or twenty-franc pieces:
the seignorage on gold is only ½ per cent.

One kilogramme of pure gold yields 81,457 gold muhrs, or (deducting 2 per cent, mint duty) 79,828 ditto, therefore

As the Chinese have no gold or silver coins, but make payments in those metals by weight, it is sufficient to state the value of the tael of the sycee and dollar silver usually current with them.

```
100 tael of Sycce silver av. = 322.135 telås in weight = (120 oz. 16 dwts. English). = 344.108 Fd. rupecs, or deducting duty (337.226 Fd. rupecs, 15 dwts. Br. = 322,602 sikkå rupecs, of 2 per cent. (316.150 så. rupecs, 100 tael of (= 314.811 Fd. rupecs, dellars 5 Wo. = 295.135 så. rupecs, of 2 per cent. (289.233 så. rupecs.
```

The par of exchange with other places may in a similar manner be found from the table of coins.

## GENERAL TABLE OF INDIAN COINS.

When it was said, at the commoncement of this paper, that the rupee was the universal unit of currency throughout India, a reservation should have been made for those parts of the Peninsula where the Pagoda and Fanam still circulate. There are, in fact, two distinct systems still prevalent, the Hindú and the Musalmán; and although the former has become extinct throughout the greater part of Hindústán by the predominance of the Muhammadan power, it is traceable in the old coins found at Kanauj, and other seats of ancient Hindú sovereignty, which agree nearly in weight with the coins still extant in the several petty Hindú States of Southern India.

## HINDÚ SYSTEM.

The unit of this system was of gold, and the old specimens found are of sixty or one hundred and twenty grains in weight: showing an evident connection with the Grecian drachma and didrachma of gold (or χρυσος and διχρυσος) and confirming the testimony afforded by the device and symbols of old Hindú coins, of a direct descent from their Bactrian prototype.

As the Muhammadan power never gained an entire ascendancy in the Peninsula, the same system of currency continued to be issued from the mints of a number of petty Rájships in Malabar and the Carnatic. The principal of these were at Bangalor and Maisor, under the Ikkeri Rájá, who coined the Sadasiva húns,¹ so called from a former Rájá. They bore the figures of Siva and Párvatí on one side, and a temple on the reverse. During the usurpation of Hyder 'Alí and Tipú, Bahádurí and Sultání húns were struck in Maisúr; the former are distinguished by a \(\tau\) the initial of Hyder's name. At Travancore also a mint has existed for a very long period, coining Ánandráí húns, so called from a prince of that name. The Ikkerí and Travancore mints are the only two now in existence.

The name of this coin among Europeans is 'Pagoda,' a Portuguese appellation derived from the pyramidal temple depicted on one side of it. The proper Hindú name is Varáha,' 'wild boar,' and doubtless originated in a device of the Boar Incarnation, or Avatár, of Vishnu upon the ancient coinage of the Carnatic; for the same figure appears as the signet of the Rájás of that country, on some old copper grants of land in the Mackenzie collection.' The Hindú name probably

े अराह

<sup>&</sup>lt;sup>5</sup> The Varaha also appears on some ancient silver coins of Orissa. See Wilson's account of coins of this type, 'Asiatic Researches,' vol. xvii. p. 586.

varied according to the image on the coin; thus we find the Rámatanka having the device of Ráma and his attendants; and the Matsya¹ hún of Vijayanagar with four 'fish' on the obverse. Other pagodas have Vishnu, Jaganáth, Venkateswar, etc. on them; those with three Swámís, or figures, are of the best gold, and are valued ten per cent. higher than the common pagoda.

'Hún' is the common term used by the Muhammadan writers, and indeed generally by the natives, for the pagoda. It signifies 'gold' in the old Carnatic language.

The hún was subdivided into 'fanams' and 'kás.' Fanam, or more properly panam, is identical with the word pan, known in this part of India as one of the divisions of the Hindú metrical system, now applied chiefly to a certain measure of kaurís and copper money. The old fanam was of gold only, and was one-sixteenth of a hún. In the 'Lilávatí' we find sixteen pana—one dharan, sixteen dharan—one nishk; where the dharan (or dharam) seems to accord with the hún, which, as before said, is identical in weight with the Greek drachma. The Ikkerí pagoda still contains sixteen fanams: that of Víraráí and Anandráf, fourteen; and the Kalyan pagoda, twenty-eight. The division adopted by the English was forty-two.

'Kás' may be a corruption of the Sanskrit word Karsha, which is mentioned in Colebrooke's 'Essay on Indian Weights,' as the same with the pan: 'a Karsha, or eighty raktikás (ratís) of copper is called a pana, or Karsha-pana.' It is now the eightieth part of a pan, but similar discrepancies are common throughout, and the simple word is all that can be identified as having survived the changes of system.

As accounts were formerly kept at Madras in this currency, the following particulars extracted from Kelly's 'Cambist' will be found useful for reference:

According to the old system, accounts are kept in star-pagedas, fanams, and kas. 8 kas — 1 fanam.

336 kås - 42 fanams - 1 pagoda.

The Company reckon twelve fansms to the Arcot rupee, and three and a half rupees to the pageda. The bazar exchange fluctuates from thirty-five to forty-five fanams per pageda, the latter being a gold coin, and the former of silver; but fanams were also coined of base gold. Copper i-, v-, x-, and xx-, kas pieces were coined in England, by contract, for Madras so early as 1797; the xx-kas is also called 'dodo' and 'falus.'

The star-pagoda weighs 52.56 grains, and is nineteen one-fifth carsts fine: it is, therefore, intrinsically worth 7s.  $5\frac{1}{4}d$ , sterling; but it is commonly valued at 8s. Many varieties of the pagoda circulate on the Coromandel coast, which will find their places in the General Table.

In 1811 a coinage from Spanish dollars took place, consisting of double rupees, rapos, halves, and quarters; and pieces one-, two-, three-, and five-, fanams; the rupee weighed 186·7 grains. A silver coinage of half- and quarter-pagodas of dollar fineness also then took place; the half-pagoda weighed 326·73 grains troy, and was equal to 1\frac{2}{4} Arcot rupees. By a proclamation of 7th January, 1818, the silver rupee of one hundred and eighty grains was constituted the standard coin, and all accounts and public engagements were ordered to be converted at the exchange of three hundred and fifty rupees per hundred pagodas.

The proportion between the old and new currency is therefore now 3\frac{1}{2} rupees per pagoda; and in copper seventy-five kas old currency -fourteen paisa new currency.

# MUSALMÁN SYSTEM.

The Musalmán system, of which the muhr and the rupes are the characteristic denominations of coin, assumes at the present day a multifarious appearance from the great variety in weight and value of the rupees current in different parts of India. That they have a common origin; and, in fact, that most of the rupees now issued from the Native mints of Central India are of modern date, is easily proved, since they almost all bear the impress of Sháh 'Alam, like our own coin.

The silver rupee was introduced, according to Abú'l-fazl, by Shír Sháh, who usurped the throne of Dihlí from Humáyun in the year 1542. Previous to his time, the Arabic dirham¹ (silver drachma), the gold dínár² (denarius auri), and the copper falús³ (follis) formed the eurrency of the Moghul dominions. Shír Sháh's rupee had, on one side, the Muhammadan creed; on the other, the emperor's name and the date in Persian; both encircled in an annular Hindí inscription. Since 'the same coin was revived and made more pure' in Akbar's reign, we may assume the original weight of the rupee from Abú'l-fazl's statement, to have been eleven and a quarter máshas¹; Akbar's square rupee, called from its inscription the Jalálí,⁵ was of the same weight and value. This coin was also called the Chahár-yárí,⁵ from the four friends of the prophet, Abu-bakr, Omar, Osman, 'Alí, whose names are inscribed on the margin. This rupee is supposed by the vulgar to have talismanic power.

Concerning the weight of the masha some difficulty prevails, as this unit now varies in different parts of India. Mr. Colebrooke makes it seventeen grains and three-eighths nearly; but the average of several gold and silver jalálís of Akbar's reign, found in good preservation, gives 15:5 grains, which also agrees better with the actual masha of

many parts of Hindústán.1 By this calculation the rupee originally weighed 174:4 grains troy, and was of pure silver (or such as was esteemed to be pure). The same standard was adopted by the Emperor Akbar, and accordingly we find coins of Akbar's reign dug up in

The following are the masha weights sent home for examination in 1819, as published in that highly useful work, Kelly's 'Cambist':

The Patna masha is called ... 18.5 grs. The Benares from several Málwá ...... 15.833 specimens ...... 17.7 The Calcutta masha, by Ahmadnagur 15,700 Kelly 32,0
Puna 15,970 But probably this was a double masha.
The average of all these agrees nearly with the Akhari masha.

A gold jaláli of Láhor, rather worn, weighs 186 6: this may be the 121 másha cein

mentioned by Abu'l fazl, which would give fifteen grains for the mashs.

I annex some incidental information on the subject of Shir Shih's coin-weights and values, which I had occasion to draw up some years ago. I insert the entire passage in this place as further illustrative of the true weight of the masha.

"I have previously 'Coins of Pathan Kings of Dehli,' Preface, p. vii.) assumed, from existing specimens of the silver money of Shir Shah, that the original mint standard of his rupees was enleulated at an average weight of 178 grains, if not more. Abú'l-fazl's statement on the point, scrutinized more critically than it has heretofore been, affords a singularly close confirmation of this inference. I find it recorded in no less than four excellent copies of the original Persian 'Ayin-i Akbari,' that the rapec of Akbar, which was based upon that of Shir Shih, weighed eleven and a half mishas; the same weight is assigned in these copies of the MS, to Akbar's jalali, which is avowedly identical in value with the former. I mention this prominently, as Gladwin, in his translation (I. pp. 29, 35, etc.) has given eleven and a quarter mishas as the weight of each of these coins; and Prinsep, in accepting Gladwin's figures, was led to place the weight of the old rupes at nearly four grains below its true standard.

"There is some doubt as to the exact weight we are to allow to the masha, which varied considerably in different parts of India. Prinsep has determined the Dehli masha to be 15.5 grains, and admitting this, the result shows Shir Shah's rupee to

have weighed 178.25 grains of what was esteemed pure silver.

"The assignment of 15.5 grains to the Shir Shahi masha is equally well borne out in the test afforded by Akbar's own coins. In order to avoid the very probable error of mistaking the identical class, among three but little varying denominations of the gold coinage, to which any given specimen within our reach should belong, I confine my reference to the silver money of Akbar, which, though differing in its various mintages, in types and legends, was preserved, in effect, uniform in weight and value, Marsden has contributed an example (No. DCCCXXIV.) of a square julali of this Pådshåh, weighing 176.5 grains: had the telå at this time been fixed at 180 grains, this coin would contain four grains more than the law required; as it is, even allowing for wear, it shows a return of 15.3 grains to each of the 11½ mashas of 15.5 grains, which should, under the higher scale of weights, originally have constituted its total on issue from the mint.

"The adoption of this 15.5 grain masha as a standard, necessitates a concurrent recognition of a proportionately increased weight in the tolk as then in use; we can scarcely suppose the twelve mashus composing the tolk to have aggregated 186 grains, while the tola itself remained at the 180 grains modern usage has assigned it. We have fortunately at hand a second means of proving the question, in the due determination of the intrinsic contents of the pieces composing the lower currency of the period, and the result will be found to show sufficient confirmation of the theory which places the masha of Shir Shah at 15.5, and the tola at 186 grains troy.

<sup>\*</sup> Gladwin, 'Ayin-i Akbari,' I. 62, 59, 70. See also note 2, p. 5.

various places, and worn, weighing from one hundred and seventy to one hundred and seventy-five grains.

Cabinet specimens of the coins of Jahángír, Sháh Jahán, and Aurangzíb have also an average weight of one hundred and seventy-five

Forty dams of copper, we are told, were in Akbar's time equivalent in account, and ordinarily in exchange, to one rupee, and the dâm of copper is itself defined at 5 tanks, or 1 tola 8 mashas and 7 ratis in weight. The measure of value thus specified is likewise distinctly stated to be a continuation of a previously existing species of money, which at the moment when Abû'l-faxl wrote, went by the name of 'Dâm.' There can be but little hesitation in admitting, almost prima facie on the evidence available, that the copper pieces classed under Nos. 185, 186, Vol. xv., 'Numismatic Chronicle,' were the identical coins of Shir Shah, to which the succeeding dams of Akbar were assimilated; or, in other words, that they were in weight and value (whatever their name) the dâms of the Afghân Sultan. It is a nicer point to determine the precise contents in grains attending the original mint issue of these coins; but first taking the figures now proposed for mashas and tolas, we obtain from 1 tola 8 mashas and 7 ratis, at 186 per tola, a sum of 323.5625 grains; and then testing this return of the actual present weight of extant coins, we obtain a very reasonably close approximation to our figured result. It is true that the general average of the various existing provincial coins of this class minted during the reigns of Shir Shah and his Afghan successors, would necessarily run somewhat below the rate of 323.5 grains; but we have to allow a considerable per centage for loss by wear in such heavy coins, especially composed as they are of copper, which metal would always continue more freely current, and consequently suffer far more from the abrasion incident to frequent transfers, than the more carefully guarded and less readily exchanged silver and gold. However, we may, without claiming too much margin on these grounds, fairly consider ourselves within the mark in identifying the general series of coins under review as having originally an intentional standard of 323.5 grains, inasmuch as we can at this day produce several specimens of the coinage weighing 322 grains, and in one instance of a Hissar coin, we can recken no less than 329 grains. Added to this, we have the evidence of Perishta that in his day there was a paish! (or fixed weight? ") which was rated at 14 tolas, which, at 186 grains the tola, gives even a higher return of 324.5 grains.

"At the same time, on the other hand, it would be impossible to reduce the coins that furnish our means of trial, to anything like so low a general average as would admit of \$14 arrays for the coins that furnish our means of trial, to anything like so low a general average as would

admit of 314 grains (or the produce of the simple 180 grains total) being received

as the correct issue weight.

"Adopting, then, the rate of 323.5 grains as the legitimate weight of these copper pieces, forty of which exchanged against a rupee, we have a total of 12,940 grains of copper as equal to 178 grains of silver, which determines the relative value of silver to copper as 1 to 72.7. If this be a correct estimate, there were in each dam 9.29 chitals, and in the Shir Shahi rupee 371.8 chitals, instead of the old 320 divisional coins of that name and value, which went to the lighter silver piece of former days, when also the comparative value of silver and copper stood at a more favourable ratio for the latter."-E.T.]

Colonel William Anderson, C.B., an officer who has had extensive experience in

بول " Parsi, puhal); 2) Obolus et res quarris obolo similis, ut squama piscis, simil. (فلوس) Borhâni Katiu. Inde بيريلي n.e. Pecanise defectus."-Vullers. See also 'Journal of the Asiatic Society of Bengal,' vii. 898, and Fræhn's 'Recensio,' p. 207, etc. Abú'l-fazl says the يُل of olden days was equal to four tolas.-Gladwin's 'Ayin-i Akbari, iii. 89. Ferishta again gives 1 or 12 tolas!

grains pure, and the same prevails with little variation, up to the time of Muhammad Shah, in the coins of opposite extremities of the empire; or struck in the Súbahs of Súrat, Ahmadábád, Dihlí, and Bengal.

The following are a few examp	oles of this agreement:
Akbari, of Lahor 175.0 grains.	
Agra 174.0 do.	Ahmadábád. 174.2 do.
Jahangiri, Agra 174.6 do.	Dihli 174.6 do.
- Alláhábád 173.6 do.	Súrat 175.0 do.
Kandahar, 173.9 do.	Lahor 174-0 do.
To which may be added from the T	able of Coins assayed at the mint, reckoning
pure contents only :	
Dihli Sonat 175.0 grains,	Dacen, old 173-3 grains,
	Muhammad Shahi 170-0 do.
Old Súrat rupee 174.0 do.	Ahmad Shah 172.8 do.
Murshidabad 175-9 do.	Shah 'Alam (1772) 175.8 do.
Persian rupee of 1745 174.5 do.	

The above quotations are sufficient to show that the Moghul emperors maintained a great uniformity in the currency of their vast empire. They were also tenacious of their privilege of coining, and we find from Abú'l-fazl that gold was only allowed to be minted at Agra, Bengal, Ahmadábád (in Gujarát), and Kábul. Ten other cities were allowed to coin silver, namely, Allahábád, Súrat, Dihlí, Patna, Kashmir, Lahor, Multan, and Tanda: while, besides the former, twenty-eight towns of minor note were permitted to fabricate copper money, viz., Ajmír, Oudh, Attak, Alwar, Badáon, Benáres, Bhakar, Bhara, Patan, Jaunpur, Jalandhar, Saharanpur, Sarangpur,

connexion with Indian weights and measures, has favoured me with the subjoined

independent results of his calculations on the general question,

I am inclined to consider that the weight of the rati may be assumed, perhaps as an extreme proportion, as high as 1.93 grains, and the masha at 15.44 grains, which will give the following return for the gold, silver, and copper coins of Akbar's time:

```
225 grains.
       Aftabi .....
                                       187
       Jaláli .....
                                           do
                                       169
       Round muhr .....
       Rupee (silver) .....
                                       177
                                           do "
                                       307
       Dâm (copper).....
The result tabulated in correspondence with these data appears as follows:
                                      1,93 grains.
            Rati
                       1 Másha
                                      15.44
            Ratis
                   -
          4 Mashas = 1 Tank
                                      61.76
                      1 Tola
                                      185.2
          3 Tanks -
       1.666 Telás
30 Dáms
                       1 Dam b
                                     307.4
                   -
                                     9222.0
                       1 Ser
                   100
                               -
         40 Sers*
                   - 1 Man
                               = 368,880.0
The relative values of the metals are estimated by Colonel Anderson-
          Gold to silver .....
                                     9.4 to 1
          Silver to copper ...... 70.0 to 1
                                               -E.T.]
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Sambhal, Kanauj, Rantanbhor, Hardwar, Hissar, Kalpí, Gwaliar, Gorakhpur, Kalanor, Lukhnow, Mandau, Nagor, Sirhind, Sialkot and Saronj.

The whole of the discrepancies which we now find in the rupees of various places seem to have arisen out of the disturbances and breaking up of the empire in the reigns succeeding Muhammad Sháh, when numerous mints were established by ministers and by the viceroys of the principal Súbahs who were assuming independence; and the coin was gradually debased as the confusion and exigencies of the time increased. The Maráthí and other Hindú states also established mints of their own, retaining, for form's sake, however, the Emperor's name and superscription, as a titular avowal of Dihlí supremacy.

We may thus trace with tolerable accuracy the causes of the difference in the currencies of our own provinces, and the happy chance which brought those of Madras, Bombay, and Farrukhábád to such close approximation.

The extent to which the irregularities of the mints had proceeded in the turbulent reign of Shah 'Alam is thus described in the preamble of Regulation XXXV., 1793; the first which treats of mint matters:— 'The principal districts in Bengal, Behar, and Orissa had each a distinct silver currency, consisting either of nineteenth sun Moorshedabadees, or old or counterfeit rupees of various years coined previous or subsequent to the Company's administration.' The circumstance of the date of coinage being inserted on the coin enabled the shroffs<sup>2</sup> to recog-

<sup>1</sup> [As likely to assist those who would desire to trace these names on the original coins, I subjoin an alphabetical list of Akbar's mints in the Persian character, extracted from MSS, of Abû'l-fazl's 'Ayîn-i Akbarî.'

		NO 5524		
ا 33 كلانور	23 سرونج	12 يهكر	اتَّک	1
84 گواليار	24 سرهند	13 يهره	اجمير	2
35 گورکهپور	25 سنبهل	14 يٿن	احمدآباد	3
36 لاهور	26 سورت	15 يٿنه	12,6	4
37 لكهنو	27 سہارنپور	16 ئَاندُە	ألور	
88 مثهرة	28 سيالكوت	17 جالندهر	الهباس	6
39 ملتان	29 قنوج	18 جونپور	اوده	
40 منڌو	30 کابل	19 حصار (فيروزة)	اوجين	
41 ناگور	31 كالبي	20 دهلی	بداون	
42 هردوار	32 كشمير	21 رنتنېهور	بنارس	
[E.T.—		22 سارنگپور	بنگآله	
			2000 CO.	

<sup>\*,</sup> sarrdf, 'a money-changer صرّف "

nize each, and so to apply the battá¹ to which the known debasement of each entitled it: it was rather a convenience therefore to restrict the circulation of one species to one district, although so much deprecated in the Regulation in question. In exchanges from one place to another, there however, might be, as stated, room for much abuse among the money-dealers. The Company resolved to remedy this evil in 1793, by declaring that all rupees coined for the future should bear the impression of the nineteenth year of Sháh 'Alam, and thus, by its adoption at that early period, it has happened that the sikká rupee is the only one of their coins which retains the full value of the original Dihlí rupee at the present day.

The Súrat rupee of the Moghul Emperor was in like manner about the same time adopted as the currency of the Bombay Presidency : it weighed 178.314 grains, and contained 172.4 pure, being thus nearly equal to the Dihlí rupee. By an agreement of the English government with the Nawab of Surat, the rupees coined by both were to circulate at par, and they were mutually pledged to preserve its standard. The Nawab's rupees, however, were soon found to contain 10, 12, and even 15 per cent. of alloy; in consequence of which, the Bombay rupees were melted down and re-coined at Súrat; the coinage of silver in the Bombay mint was suspended for twenty years, and the Súratís alone were seen in circulation. At length, in 1800, the Company ordered the then Súrat rupee to be struck at Bombay, and thenceforth it became fixed at 179 grains weight, 164.74 pure. The muhr was also equalized in weight thereto.2 Lastly, in 1829, under orders from the Home Government, the currency of the West was equalized with that of Madras, by the adoption of the one hundred and eighty grain rupce and muhr.

The Arcot rupee, according to our Assay Tables, in 1788, still retained one hundred and seventy grains of pure silver, and subsequently, when coined at the mint of Fort St. George, it had a weight of 176.4 grains, or 166.477 grains pure, until the new system was introduced in 1818, and the Madras one hundred and eighty grain rupee was established. From some reason or other, perhaps from commerce between the places, the Chittagong and Dacca currency formerly consisted of Arcot rupees; and they were for some time coined expressly for those districts at the Calcutta and Dacca mints; the average of many of various denominations still circulating in Chittagong agrees closely with the Farrukhábád rupee.

It would be a difficult task to unravel the progress of deterioration of the currency in the Upper Provinces, the more immediate seat of revolutions in the eighteenth century. But one instance may be given,

<sup>ै</sup> वड़ा के कहातं, 'difference or rate of exchange.'

<sup>2</sup> Kelly's 'Cambist,' vol. i, p. 94,

in the Najíbábád rupee, as an example of the conduct of all the other mints. One hundred specimens of this species of rupee, of different dates, now current in Murádábád, were selected by the Collector of Bijnor for examination, in 1832. It may be observed, en passant, that many of the discrepancies in our Tables between coins of one denomination are doubtless owing to the neglect of noting the dates of their fabrication when sent for assay; the knowledge of the variation in value of the coins of various years, as before stated, led to the system of battá early introduced and fostered by the money-changers, to the perplexity of accounts and money transactions, and the nullification of legislative enactments.

The Najíbábád mint was established by Najíb-ud-daula, the Rohilla chief who exercised so powerful a sway on the fortunes of the last monarchs of Dihlí. The Barellí and Chandausí mints were also under his control. The rupees struck by him and by Zábita Khán were originally of the Dihlí standard: few of these are now met with, as they are in demand for silver ornaments, etc. From the year 26 of Sháh 'Alam (1784-5) to 43 (1801-2) they evince a gradual deterioration, both in weight and fineness. The province of Rohilkhand was, during the whole of this time, annexed to the Sábah of Oudh, as shewn by the symbol of a rohu i fish on the field of the coin. The three first assays in the list are from single coins, the remainder are averages.

Weight, Assay, and Value of the Najibábád rupce, from s.D. 1778 to 1801-2.

	Inscription,	the	usual	Shah	'Alam	distich,	year	of reign,	and	Hijra	date.	Symbols,
8	fish on the c	bye	rse. a.	CTERCET	t on t	he rever	50.					

By whom coined.	San or year of reign.	Weight Troy,	Areny.	in Fd. Rs.
Najib-ud-daula	20	173.8	111 Br.	101 9 8
	22	173.6	13 Br.	102 2 4
	23	172.2	151 Br.	102 2 6
	24	173.3	12 Br.	101 8 6
Zábita Khán	25	172.4	10 Br.	100 2 0
	26	172.4	9 Br.	99 11 0
	29	171.1	10 Br.	99 6 0
Ghulam Kadir	30	171.0	51 Br.	97 10 6
	32	169.5	8 Br.	97 9 6
	33	170.0	7 Br.	97 7 0
	24	170.2	51 Br.	96 14 8
	36	170.0	7 Br.	97 10 0
	37 39 40	171.1	5 Br.	97 3 6
	41	169.5	3 Br.	95 7 2
	42	169.3	1 Br.	94 7 9
	43	169.0	Stand.	93 14 3

Thus, in the course of twenty-three years, a deterioration of nine per cent. was effected. So gradual a change, however, should rather be ascribed to the malpractices of the mint officers, than to any fraudulent intention of the government.

The Nawab-Vazir of Oudh had mints also at Lukhnow, Benares, and Farrukhabad: in these the same process was going forward, until arrested by the successive acquisitions of the English.

The Benáres mint had been established by Rájá Balwant Singh, under a Sanad from Muhammad Sháh, in 1730. It remained under Native management for twenty years after the province was ceded to the Company in 1775. The rupee had the full weight of one hundred and seventy-five grains, and was 2½ per cent. better than the present rupee, or about equal to the Dihlí rupee of that date. It fell in value subsequently about four ánás per cent., and there, of course, remained under English management until it was abolished in 1819, and the Farrukhábád rupee substituted in its stead.

The Lukhnow rupee struck at the Fatehgarh mint had in like manner gradually diminished to 165.2 grains pure, when the Doáb was ceded to the British in 1802, and when it was assumed as the standard rupee of the new territory under the designation of the Lukhnow forty-fifth san sikká, more commonly called the Farrukhábád rupee.

We have thus endeavoured to trace briefly the origin of the three, or rather four, coins chosen for the circulation of the Company's territories, and have explained how it happened fortuitously that the Bombay, the Madras, and the Farrukhábád (or Sonat) rupee are nearly of the same intrinsic value.

		onlents.
Arcot rupee	165	grains.
Bombay	164-7	**
Farrukhábád	165.2	**

The alteration of the standard of purity, in 1818, did not affect the proportion of pure metal, but the facility of equalizing the three coins had been observed both in England and in India; and had been the subject of frequent Minutes by the Court, by the Indian Government, by the Mint Committee, and the officers of the mint; and when Ságar mint was established in 1825, it was ordered to coin new Farrukhábád rupees of one hundred and eighty grains weight, the same as the standard of Madras, or containing one hundred and sixty-five grains pure.

The Benáres mint alone continued to coin Farrukhábádís of 180.234 grains until its abolition in 1829: and the Calcutta mint since coined

<sup>،</sup> عسند sassad, 'a grant, warrant, charter.'

<sup>2</sup> Reg. XI, 1805.

them of the same weight, until the opportunity was taken finally of equalising the whole by Regulation VII. 1833.

A few words are now necessary to explain the progress of debasement in the coinage of Haidarábád, Nágpúr, Ságar, the Rajpút and other states of Central India, as far as the imperfect data at our command will permit: they are chiefly derived from the reports of the government officers in Ajmír, Málwá, and the Narbadda provinces, to queries circulated through the Mint Committee in 1818 and 1823, when the important question of equalising the coinage of Central India was under agitation.

We have before remarked, that none of the coins now forming the circulation of Hindústán bear any other name than that of Sháh 'Alam, and although we have no perfect information of the origin or date of the mints of Puna, Nagpur, or of the principal states of Rájpútána, still we may safely assume that, until the authority of Dihlí was annihilated, the representative of the monarch in the various Súbahs, or provinces, alone exercised the privilege of coining: and that even when it was assumed by chieftains already in actual independence, the form of a sanad or permission from the Emperor was obtained by purchase or extortion. The petty Rájá of Dattiah, for instance, was indignant at the supposition that he had opened his mint without authority,1 and of all the chiefs within Lieut. Moody's agency, Rájá Pratáp Singh of Chatrapur was the only one who could not produce his authority. The chiefs of Jhansi and Jalaon cited the sanction of the Peshwa: the Tahri Raja, the tacit permission of the English. No notice, however, of mints was found in any of the sanads ortreaties to which that officer had access.

When first established, the mints were no doubt in most cases made the source of fraudulent profit to the government, by the issue of a debased coin, which was supported at an enhanced nominal value, through the interdiction of the purer standards of neighbouring districts. A Hindú prince, or the minister who rules for him, is in general a money-dealer; thus at Kotá the executive authority has a shroff in each town, and participates in all the benefits arising out of money operations in the market. In Jaipúr and Kotá there exists an usage that the currency should suffer a depreciation of one per cent. on the third year after its issue, and continue at that rate during the reign of the sovereign: on the accession of his successor, it suffers a further annual fractional depreciation, which operates to bring the whole of the circulating medium into the mint for re-coinage.<sup>2</sup> This rule does

Report of Lieut. T. Moody, agent at Bangál and Kantál, 17th February, 1284.
 Major J. Caulfeild, Political Agent in Hárouti, 1st August, 1823.

not, however, extend to the other Rájpút states, nor does any debasement appear in the Kotá rupee to warrant a censure of the system there prevailing. It is such a measure as Tantia Sindia's, who abolished the standard Ajmír currency, and instituted the debased Srísáhí rupee in 1815, on a false supposition of increasing his revenue, that is so pernicious in its effects: or the more inexcusable conduct of the Gwálíár government, which, while maintaining the currency of the capital at a good standard, issues inferior coin at its provincial mints of Chándérí, and even coined debased Bálásáhí rupees at Garrah-Kotá, in imitation of the currency of Ságar.<sup>1</sup>

The list of mints which have sprung up in central India is so formidable that it is difficult to attempt any classification of them.

Mr. Wilder, in 1819, enumerates the following rupees current in Ajmír: old Ajmír, Srísáhí, Kishnagarh, Kochanam, Chittor, Jaipúr, Hálí, Jodhpúr, Oudipúr, Sháhpúrah, Pratápgarh, Kotá, Búndí, and Bhilwara. Mr. Maddock furnishes an equally long list from the Narbadda: — Panná, Chatrapúr, Saroni, Jhánsí, Chanda, Srínagar, Nágpúr, Garrah-Kotá, Bálásáhí, Ráthgarh, Tabrí, Bhopál, Sohágpúr, Sudhauráh, Jálaon, Ujjain, Isagarh. The difficulty is also increased by the threefold appellations given to coins: first from the place of fabrication, as Indor, Ujjain, Ságar proper, etc.; second, from the person issuing them, as Sindiasáhí from Sindia; Bálásáhí, from Bálájí Pandit; Gaursáhí from 'Alí Gaur, afterwards Sháh 'Alam; Mutí-sáhí, a wellknown Allahábád coin of Mr. Achmuty; third, from some distinguishing symbol impressed on the field, as Trisulf, from the 'trident' of Siva; Shamshiri, from the figure of a 'sword' on the Haidarábád coin; the Machhlisahi, and Shirsahi, from the 'fish' and 'tiger' of the old and new Lukhnow rupee, etc. There are also other titles common to different localities, as Chalan, 'current'; Hálí 'of the present time'; and the distinction into Sans, or different years of Shah 'Alam's reign. It should be remarked that Shahi and Sahi attached to the designation of a coin have totally different meanings; the former denoting 'king.' the latter merely 'impress or stamp.'2

The following notes concerning the origin of particular mints, and the amount of their issue, are derived, as before stated, from the reports of Messrs. Wellesley, Molony, Wilder, Maddock, Macdonald, Caulfeild, and Moody, between 1819 and 1823.

In Ajmír the Srísáhí rupee, coined by Tantia, formed in 1815 the principal currency; it has been partially supplanted by the Farrukh-

Maddock, 12th June, 1819.

<sup>&</sup>lt;sup>3</sup> It is, however, doubtful whether the terminal with is not a mere vulgar application of shahi, the original distinction of rupees being solely into those of different sovereigns.

ábád rupce since the province came into our possession. In Kotá there are three mints, at Kotá, Jantia Patan, and Gangroun, coining on an average thirty-six lákhs per annum: the currency is not debased.

The Holkar currency of Indor, Hardá, and Maheswar, and the Ujjain rupee, are nearly at par with the Farrukhábád, but they maintain an unequal contest with the Sálimsáhí rupee, coined by the Rájá of Pratápgarh, of which there are three kinds, the jurmurea, 150 grs. pure; the murmurea, 145 grs. pure, coined in 1810; and the melah of 1820, only 137 grs. pure. The Rájá engaged in 1821 to reform his coinage, but it has never been done.

The Bundi debased rupes is also current about Ujjain. It seems by the Assay Table to have been reformed in 1825.

The northern parts of the Narbadda territories were supplied with a base currency struck at Jabalpúr, by Nána Ghatka, in 1800; this mint was suppressed on cession to the English. The southern part (Dakhantír) had a rupee of still lower value struck at Sohágpúr, where a mint was established in 1810; it was abolished in 1818 by Mr. Molony.

These rupees passed at par with Chanda and Nágpúr rupees, the chief issue of Berár.

The Ságar mint was set up in 1779, by the Peshwá's officer at Garrah Mandlah, and coined about seventeen lákhs of Bálásáhí rupces per annum. Its operation continued under Mr. Maddock, who, to counteract the forgery going on at Garrah, inserted the word 'Sagar' in small English characters on the die. The new Ságar mint, crected in 1824, is now rapidly removing all the old coins from circulation.

The standard of the Maráthí Government of Nágpúr, to which all the neighbouring mints were, doubtless, intended to conform, presents, itself, one of the worst examples of irregularity and depreciation. Even after the establishment of a British Residency, having a nominal control over such matters, a further debasement to the extent of eight per cent. is proved to have been effected, owing to the vicious policy of farming the mint to a native contractor for an annual sum of 35,000 rupees.

In the Haidarábád country, the government of the Nizám, or of his Hindú minister, has not been behind hand with its Maráthí rivals in the adulteration of the local currency. The weight of the rupee (174 grains) shews its original agreement with the Dihlí standard, but the pure metal is gone down to 147 grains; and by way of introducing greater confusion and vexation, there is a superior currency for the Palace and the Residency, an inferior for the city, and a hukm chalaní,

<sup>&</sup>lt;sup>1</sup> A. Macdonald, 13th August, 1823.

or forced token, the precise nature of which is dubious; the worst species are struck at Náráyanpat.

In Bandalkhand, the circulation consisted chiefly of Bálá Ráo's rupee, struck at Srínagar, near Panná. This mint issued at the time of its institution, in 1794, about eighteen lakhs per annum; but after 1819, the coinage fell to four lakhs. The same prince set up a mint at Jálaon, his capital, in 1869: its issue was, at first, six lákhs, and is now diminished to one-third of that amount.

The Hansi mint of Ráo Rám Chand dates from 1780: it issued Kuár Pratáp Singh's at Chatrapúr dates from 1816. is said that Chatra Sál used formerly to coin there.

The mints of Panná (1780) and Samter (of 1808) were on a most insignificant scale, and have been put down. The Dattish mint, already mentioned, dates from 1784.

With a view to the reform, in part, of this complicated system, of which a few points only have been brought to view, the Government resolved on the 10th September, 1824, to abolish the Panna, Hansi, Jálaon, Urcha, and Chatrapur mints, and to effect a reform of that of Pratapgarh; the order was enforced in December, 1826. The Bhopal Nawab also engaged to equalize his rupee with that of Indor and Ujjain, and to abolish the Bálásáhí mint. It was thought too great a step to attempt a restoration of the Nagpur and Haidarabad currencies; and as the silver in them averaged 144 grains, while that of our rupee was 165, it was proposed to engage the Nagpur Raja to coin fourteenana pieces; and the Narbadda Commissioner was empowered to do the same for Jabalpur and Sagar: but he had already made an arrangement,1 which, while it relieved the ryots, served to introduce the new sixteen-ana rupee with facility: this was to receive, for all settlements made in the local currency, 100 Farrukhábád rupecs for every 120 Nágpúrís2; their intrinsic equivalent being 1181. Were the same principle acted upon in the Nágpúr and Haidarábád states, there could be no difficulty in accomplishing the object so much desired. As for the numerous tributary and subsidiary states, there could be no injustice in refusing them the privilege, which is of little profit, and which is in general a modern usurpation on their parts: at any rate they might be obliged to conform to the universal standard. 'We are too apt,' says Mr. H. Mackenzie, 'to let the mere exemption from the printed code be taken as an exemption from all law, and to deny to a large portion of India the benefits it would derive from the just discharge of the duties belonging to the paramount power.' 3

Maddock, 3rd February, 1827.

The same rate is used in paying the Bombay troops at Aurangabad, in the Govind Bakhsh, or Haidarabad currency.

<sup>3</sup> Mint Committee Records, September, 1824.

The standard of Panná, under the Peshwá, was called the Ankusí rupee, from ánkus, the instrument used by the mahout to guide the elephant; probably a symbol marked on the coin. This rupee appears from Kelly's tables to have been extensively adopted as an unit in the estimation of value and weight, probably wherever the Maráthí ascendancy prevailed. It is current through the Dakhan and the Konkan. The Chanda rupee of Khándísh circulates at par with it. In Gujarát there are several denominations of rupees, but the principal is the Bálásáhí, coined at Baroda.

It is not necessary to allude to the Patiyálá, Bhartpúr, Díg, and many other rupees, the names of which denote their origin and their place in the General Table. Still less need we advert to the Korá, Allahábád, Agra, Saháranpúr, Barellí, Kálpí, Atáwi, Mathurá, Pánípat, and other rupees, which belong more immediately to the Dihlí group, coined only on particular occasions or for short periods, and the mints of which have long since disappeared from our list.

There are, however, to the eastward in Assam a distinct class of coins bearing, in a Bengalí inscription, the name of the Rájás of that province, since the time of Rájá Rudra Singh. They present an example of good faith in these rude people, being in weight and purity equal to the former Arcot rupee of Dacca, and some degree better than the present Farrukhábád rupee.

The circulating medium of Nepál is also essentially Hindú, and of such interest on that account, that we gladly avail ourselves of the permission to insert an account of the coinage of that state, drawn up by Doctor J. M. Bramley, in 1881.

# COINAGE OF NEPAL.

"The conquest of Nepál by the Goorkhas took place in the Newar year 888, corresponding with A.D. 1768. Prior to this epoch, the valley of Kathmandu was divided into three sovereignties, Patan, Bhatgaon, and Kathmandu, each governed by a Rájá: hence on the Newar coins the three series of Rájás' names are found. Those of Bhatgaon are generally (though not always) distinguished by a shell, those of Patan by a tirsool, and those of Kathmandu by a sword.

"It was formerly the custom for all money current north of the valley of Nepál, so far as the boundaries of Chinese Tartary, to be coined by one or more of the Nepál Rájás, which was a source of considerable profit to them: the Bhoteahs giving them weight for weight in silver and gold dust; but this was discontinued during the reign of

Ranjít Mal, the last reigning Rájá of Bhatgaon, who sent them such base coins as to occasion a decrease of nearly one-half of their intrinsic value, which was no sooner discovered by the Bhoteahs than a desertion of the mint took place, and there has been no more Bhote coinage made in Nepál.¹ The amount contracted for on this occasion was ten lákhs of silver mohurs, exactly similar to those current in Nepál. The Bhoteahs, who now visit Nepál for trade, profit by this spurious coin, which they take in exchange for their goods at five gandas per muhr, and they pass off in their own country as of full value, or ten gandas. As the Bhoteahs have no other currency, they are compelled to cut them into halves, quarters, and eighths. They are the only coin current in Lassa.

"The old coins of the 'Mals,' or Newar Rájás, are much valued for their purity, and are worn by the women, strung to necklaces or armlets, as tokens in memory of their ancestors.

"Since the Goorkha conquest, the Vikrama era has superseded that of Newar for ordinary purposes; and the Sáka, commonly used in Hindústán, has been introduced upon the coins. Rájá Pritinarain is the first Goorkha sovereign, from whose accession a regular series may easily be obtained. The inscriptions on the present prince's coins are Sri Sri Sri Rájendra Vikrama Sah Deva, 1738; and on the reverse, Sri Sri Sri Gorakhnáth Sri Bhavani.

"The gold and silver coins have the same names and divisions differing only slightly in weight.

Takka.		Mohur.		Books.		Annee.	2	Pysa.		Dam.
1	=	2	=	4	-	16	=	80	-	400
		1	_	2	-	8	=	40	-	200
				1	-	-4	-	20	-	100
						1	-	5	-	25
								1	-	5

"The mohur or eight-anna piece is the principal coin in use: it weighs 87 grains, and is therefore evidently identical with the Muhammadan half-rupee, but the quality of the metal has been much adulterated.

"The Nepálese procure all their silver from China, in the form of stamped lumps, as they are current in Lassa: for the Tibetans generally follow the Chinese custom in their money transactions of paying and receiving by weight, and the merchants carry scales with them for the purpose."

There are a few specimens, however, among Dr. Bramley's collection

<sup>&</sup>lt;sup>1</sup> Mr. Csoma de Körös states that the English rupce circulates freely through Western Tibot.

of a Tibetan silver coinage struck at Lassa, having an inscription in both Chinese and Tibetan characters. Mr. Csoma de Körös interprets the purport of the Tibetan legend on one of these to be G'tsang pahu, 'pure piece;' or, as 'G'tsang' is the name of a large province in Tibet, lying next to Nepál, it may mean 'Tsang money.' It likewise bears a name, variable on different specimens, of former Emperors of China, B'chah-H'chhin and Chhan-lung. Besides this, in letters also, the date (25, 59, 60, etc.) of the Tibetan or Chinese cycle of sixty years.

The common Chinese brass money, with a square hole in the centre, is likewise current in Lassa, as generally through the whole of the Chinese empire.

Although not quite relevant to the subject of Indian coin, still, as Chinese silver forms so considerable a portion of the bullion importation of Calcutta, we may be permitted to insert a brief account of the Chinese system, from that useful compendium, the 'Companion to the Anglo-Chinese Kalendar,' for 1832.

## CHINESE CURRENCY.

Sycee silver, in Chinese 'Wan-yin,' is the only approach to a silver currency among the Chinese. In it the government taxes and duties, and the salaries of officers, are paid; and it is also current among merchants in general. The term Sycee is derived from two Chinese words, Se-sze, 'fine floss silk,' which expression is synonymous with the signification of the term 'Wan.' This silver is formed into ingots (by the Chinese called shoes'), which are stamped with the mark of the office that issues them, and the date of their issue. The ingots are of various weights, but most commonly of ten taels each.

Sycee silver is divided into several classes, according to its fineness and freedom from alloy: the kinds most current at Canton are the five following:—

1st. Kwan-heang, 'the Hoppo's duties,' or the silver which is forwarded to the imperial treasury at Peking. This is ninety-seven to ninety-nine touch. On all the imperial duties, a certain per-centage is levied for the purpose of turning them into Sycee of this high standard, and of conveying them to Peking without any loss in the full amount. The Hoppo, however, in all probability increases the percentage far above what is requisite, that he may be enabled to retain the remainder for himself and his dependants.

2nd. Fan-koo or Fan-foo, 'the treasurer's receipts,' or that in which the land-tax is paid. This is also of a high standard, but inferior to that of the Hoppo's duties, and being intended for use in the

<sup>\*</sup> By the natives of India 🍕 , کبری khuri, or 'hoofs.'

province, not for conveyance to Peking, no per-centage is levied on the taxes for it.

3rd. Yuenpaou or Une-po, literally 'chief in value.' This kind is usually imported from Soochow, in large pieces of 50 taels each. It does not appear to belong to any particular government tax.

4th. Yen or Eem-heang, 'salt duties.' It is difficult to account for these being of so low a standard, the salt trade being entirely a government monopoly. This class is superior only to

5th. Mut-tae or Wuh-tae, the name of which, signifying 'uncleansed or unpurified,' designates it as the worst of all. It is seldom used, except for the purpose of plating, or rather washing, baser metals.

The tael of Sycee in the East India Company's accounts is reckeded at 6s. 8d. sterling. When assayed in London, this metal is frequently found to contain a small admixture of gold. Mercantile account sales give the following average out-turn of China bullion remittances to London, Calcutta, and Bombay; that

100 taels of Syese yield \$\\ \frac{\pmathbb{\pmathbb{E}}{2078} \text{ sikkå. Rs., or with charges 3062 Rs., at Calcutta. }\\ \text{2335 Bombay Rs., or \quad \text{, }\\ \text{3302 Rs., at Bombay.}\\ \end{args}

## AVA SPECIE-

The Burmese, it is well known, have no coined money, but, like the Chinese, make their payments in the precious metals by weight. Like the latter nation, also, they make use of decimal divisions in estimating the value or purity of gold and silver, and their systems of weights and measure follow the same convenient scale. We are indebted to Major Burney, Resident at Ava, for the following particulars:

Vis, Tikal, and Moo are the general terms used in the transactions of commerce and accounts: their subdivisions and multiples are—

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1 po or be.

2 = 1 moo.

2\frac{1}{2} = 1 mat.

5 = 2 = 1 hkwe.

10 = 4 = 2 = 1 kyat or tikal.

1000 = 400 = 200 = 100 = 1 peiktha or vissom.

(100 tikals are precisely equal to 140 tolás).
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The expressions employed by the goldsmiths in declaring the quality of bullion require a knowledge of the Burmese numerals, and a few other words:

NU	MERALS.	METALS.	ABSAY TRRMS.		
1. Ta.	6. Khyouk.	Shwe, gold. (Shwense, red	Det, better or above.		
2. Nheet.	7. Khwon.	or pure gold.)	Mee, differing x or		
3. Thoun.	8. Sheet.	Ngwe, silver.	Meedet, better in assay.		
4. Le.	9. Ko.	Ge or khe, lead or alloy.	Mee shyonk, worse ditto.		
5, Nga,	10. Tshay.	Nee, copper. Byco, tin.	Ma, adulterated,		

The usual weight of the small lumps of silver current in the place of coin is from twenty to thirty tikals (thirty or forty tolás): they bear a variety of names from their quality and appearance, the figures given by the action of the fire upon a thick brown coating of glaze (of the oxydes of lead and antimony) answering, in some degree, the purpose of a die impression.

Ban' signifies 'pure' or 'touch,' and is the purest obtainable of

the Burmese process of refinage.

Kharoobat, 'shelly' or 'spiral circled,' is applied to a silver cake, with marks upon its surface, produced by the crystallization of the lead scoria in the process of refinement: it is supposed to denote a particular fineness, which, by Burmese law, ought to be ten-ninths yowetnee in value, i.s., nine tikals of kharoobat pass for ten of yowetnee silver; or it should contain nineteen and a quarter ban and three-quarters copper.

Yourdass, 'red-leafed' flower or star, silver, is so named from the starry appearance of the melted litharge on its surface. Yowet is a corruption of rowsk, 'leaf,' and the word is sometimes written by Europeans rowance, rouni, roughance, etc. Yowetnee is the government standard of Ava, and contains by law eighty-five ban and fifteen alloy per cent. Taking it at nine-tenths of purity of kharoobat, which last is 94.6 touch, its quality will be 85.2 fine; which closely accords with the legal value. The average of 60,000 tolás of yowetnee in the late Ava remittance turned out two dwts. worse (90.8), but there was a loss of more than one per cent. in melting, from the exterior scoria.

Dain, the most common form of bullion met with in circulation, is so called from an assessment, levied during the late king's reign, upon villages and houses: dain signifying 'a stage,' or distance of two miles. These cakes also weigh from twenty to thirty tikals each. Their prescribed legal quality is ten per cent. better than yowetnee, which puts this species of silver on a par with kharoobat. In practice, however, the quality varies from one to ten per cent. better (five Br. to thirteen and a half Wo.) than Calcutta standard. The average of fifty-two lakhs of dain turned out three pennyweights Br.

There is an adulterated dain silver, stated by Major Burney to be similar in quality to yowetnee, but in reality much worse (forty-two and a half pennyweights worse) lately introduced and extensively circulated: it is made by admixture of lead, and is called Ma-dain.

The following will serve as examples of the mode of evaluating bullion:

<sup>&</sup>lt;sup>1</sup> This word is synonymous with the 'Bani' of the 'Ayin-i Akbari:' Banwari is the Indian name of the touch needles used in reachly valuing the precious metals.

Dain, ko-moo-det, is Dain nine per cent. better. (See previous explanation.)

,, nga-moo-det, ,, five per cent, better,

Yowetnee, , standard, (Eighty-five touch.)

" Kyat-ge, or ta-tshay-ge, one tikal or tenth of alloy (meaning one-tenth weight of alloy added to standard).

" Kyouk-tshay ngn-kyut-ge, six tens five tikal alloy (meaning sixty-five per cent, of alloy added).

gyan, half yowetnee (and half alloy).

Gold. The purity of gold is expressed by moos or 'tenths' only: ten moos, 'tshay moo,' (one hundred touch) being esteemed pure gold.

'King's gold,' or standard, is called Ka-moo-ta pe-le-yowe (nine moos, one pe, four seeds), or nine and three-quarter moos fine.

'Merchants' gold' is Ko-moo-ta-be, nine and a half moos fine. Gold muhrs are called eight and a half moos fine by the Ava assayers.

The out-turn of the Ava specimens will be given as an Appendix to the General Table.

Having now adverted to most of the groups and denominations of money, which are comprised in the following tables, it remains merely to explain the sources whence the materials for them have been collected. For the coins of the West of India, Mr. Noton's table, published at Bombay, in 1821, has been consulted, and, for India generally, the table published in Kelly's 'Cambist,' from the assays of Mr. Bingley, at the Royal Mint; but the principal portion is derived from the table printed, but not published, by Mr. H. H. Wilson, Assay Master at Calcutta, in 1833, from his own assays: indeed, almost all the coins inserted in the table have been frequently assayed, and generally in large parcels, at the Calcutta, Benáres, and Ságar mints.

As Mr. Wilson's table gives the value in sikká rupees (of 191.916 grains troy), it has been necessary to recalculate the whole column of produce, which now, in the Silver Table, expresses the value of one hundred of each species of coin in the general standard British rupee of one hundred and eighty grains. To find their value in sikká rupees (of one hundred and ninety-two grains) it is only requisite to divide the Farrukhábád value by sixteen, and deduct the product, as explained in page 7.

The weight and pure contents are expressed in troy grains. The standard or assay is given both according to the decimal system and in the usual terms of assaying; viz., in earats, grains, and quarters, for gold,—and in pennyweights and halves for silver,—better or worse than the standard of the Company's coins, namely, eleven ounces fine and one ounce alloy.

The silver pound is divided into twelve ounces, or two hundred and forty pennyweights, or four hundred and eighty halves. The gold pound into twenty-four carats, or ninety-six carat grains, or 384 quarters.

The 'intrinsic value' of the coins is the relative value of their pure metal, as compared with the pure contents of the gold muhr and the rupee. The mint price is two per cent. less, besides the charge for refinage, according to the quality of metal, as stated in pages 9 and 12.

To find the value of any number of rupees, follow the rule before laid down; namely, multiply by the figures in the column of produce and divide by one hundred. For gold coins, if required in rupees, multiply further by the Regulation value, sixteen for the Calcutta, or fifteen for the Madras muhr; or if the bazar price be wanted, by the bazar price of the gold muhr for the time being. The decimal parts of the muhr and rupee may be converted into anas and pa's by the Table, page 12.

It should be remarked, that the following tables are not intended as an authoritative list of the rates at which the various coins are received by Government, but solely to shew their average intrinsic produce when brought to the mint as bullion to be converted into Farrukhábád rupees. Particular rules have been at different times promulgated, fixing the exchange at which military and other payments were to be made, and revenue to be received, in different currencies.

Such was the list published in Regulation III., 1806, which is now obsolete, being inconvenient in application, from its specifying the value by weight, and not by tale.

The following rules are still in force at the Government treasuries of the Bengal Presidency: the first has reference to the old current rupee of account, of which one hundred and sixteen were equal to one hundred sikkás: this imaginary money is now disused, except in the valuation of some few articles of the English market in the price current.

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In the payment of troops and others connected with the Military Department,
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111 sikká rupees, = 116 Sonát or Farrukhábád rupees.

325 " = 350 Madras and Bombay rupees.

In payments to others not in the military service,

100 sikká rupees, = 104½ Farrukhábád or Sonát rupees.

The established rates of batta on local currencies, fixed for the guidance of revenue officers, are as follows:

Benáres and Gaursháhí rupecs, at par with Farrukhábádía.

104	Barelli rupees,	-	100	Farrukh, Rs.	under	Gov. Orders,	1st July, 1833
1034	Old Parrukhábád,	-	100	,,			29th Jan, 1833
1034	Dihli, 38th san,	=	100		**	**	
101	Muhammadsháhí,	-	100		23	12	10
101	Old Lukhnow,	-	100		**	19	
106	Najibabad,	=	100		19		1st July, 1833
106	Chandausi,	200	100		,,,	12	12

120	Chanda rupees, = 100 Farrukh, Rs Under Government
120	Nagpūr Rs. viz.  Mehrū, Nishandār, Debūndyā, Jabrā, Manjhūlā, 7 san, Chhapā, Orders, 19th August, 1833. The receipt of these coins at this rate, however, is limited to the public treasuries in the Baitūl, Sconi, and
120	Jabalpůr rupees, = 100 Fd. rs. Hoshangábád districts.
1.20	( For Chittagong and
100	Arkāt rupces, = 88\frac{1}{2} sikkā rupces, Ballūah, 22nd Jan., 1833.
120	Haidarabad rupees, = 100 Bombay rupees, for payment of troops, etc.
100	— 83 r. 14 a. 3 p. sikkā, accounts of Haidarābād Residency.
100	The Ikkeri, Bhol, Bholpadi, Bahaduri, and Farrukhi pagodas are taken at 387,2 Ankuri rupees at the Puna treasury.
100	Gaddopádi, Tadak, Kadvanajá, Háli, Modápadi, and Bangalore pagedas, at 375 Ankusí rupess.
100	Muhammadsháhi and Venkatapati, at 337.2 ditto.
100	Rájáram Ikkeri pagodas, — 381 "
100	Bhatori = 325
100	Tomancein = 203
100	Harpanháli = 343,3
	. E.F. (B10 (D1) (B1)

#### NATIVE COPPER COINS.

Our information regarding the copper coin in circulation throughout Central India is very limited, but it is well known that as much perplexity exists in the varieties of paisá, and in the greater range of their value, as in the coins of the more precious metals; so that every town and village almost has its separate currency, and its established nirkh,<sup>2</sup> or, rate of exchange, with the rupee, to the great inconvenience of the traveller and of the poorer classes. In weight they vary from 280 grains (the Jaipúrí, etc.) to 34 grains (the Maiwári): the former passing at about 35, the latter at 378, paisá for a rupee. From the small advantage of melting up copper money, it happens that much of the circulation in this metal is of very great antiquity; and not only many ancient Hindú coins are met with, but Bactrian and Roman copper coins are also frequently procurable at fairs and in the neighbourhood of old towns in Upper India.

The paisá was in some cases adopted as the unit for determining the larger weights of the bázárs, as the Gorakhpúr paisá, of which 530 were held equal to a passerí (five sers) at Gházípúr, and generally through the Benáres province. 2881 'chalans' of Fatehgarh in like

Noton's table, 4th Aug., 1821. He states, however, that the rates may have varied since 1812, when they were established.

manner were assumed as the weight of a man in that district. The Dihlí paisá, coined till 1818, was twelve máshas or one tolá in weight.

The Table at page 62 contains such a list of copper coins as the scanty materials at hand enables us to supply. Most of the native paisá contain more copper in proportion to their value than the present Company's coin, which was, however, originally one tolá in weight, and was gradually reduced to one hundred grains (as shown in the table); it is at present in fact a government token, worth, intrinsically, less than its nominal value.

Within the Ceded Territories the native coins still predominate, but the Company's paisá is now gradually spreading to westward, and the Ságar mint has for several years been employed in converting the native copper money into Benáres or trisúlí paisá of one hundred grains weight, and sixty-four to the rupee. At Bombay, the old paisá have been bought up by Government, for the purpose of removing them entirely from circulation, and substituting the new coin (described in page 4). The Bengal Government have also recently adopted a measure tending to withdraw the trisúlí paisá (see page 8) from circulation, in consequence of their becoming much depreciated in public estimation from a large admixture of spurious coin, and other causes; the Calcutta mint being ordered to grant sixty-four new paisá for seventy-two trisúlís, for an amount not under twenty rupees in value brought for exchange.

## SYMBOLS ON SHAH 'ALAM COINS.

It may naturally be asked, how the multitude of coins, gold, silver, and copper, included in the following lists, are to be recognised by any but a professed money-changer, since, as has been observed before (page 19), most of them bear the more name and distich of Sháh 'Alam, and the place of coinage, being the lowermost word of the inscription (page 2), will seldom be found on the face of a coin showing, as is generally the case, only a small portion of the die. Many mistakes have doubtless been made in fixing the localities of coins, from this abundant source of error, and it is much to be regretted, that it has not on all occasions been made a primary point to ascertain the distinguishing mark of every specimen collected for examination.

Some rupees (as the Sálimsáhí, etc.) appear to be only distinguished by the peculiar imperfections of the Persian character they bear; others have but a few discriminating dots, like the private marks of our own mints; but the majority have a well distinguished symbol, the same on silver and on copper, by which they may be readily known on inspection. There is a further advantage in con-

sulting such marks, for they enable us at once to class together various coins as having been issued by the same authority. A list and plate of these symbols, confessedly imperfect, follows the catalogue of coins, but it may be convenient to assemble together here a few of the groups, whose connection is otherwise confirmed by the preceding remarks on the Bundelkhand and Rájputána mints.

The coins of Lukhnow, Fatchgarh, Azimgarh, Barellí, Najíbábád, Benáres, and other places under the súbah of Oudh, hore the symbol of a rohu fish. The Agra paisá has a pistol.

The coins of Rohilkhand, Bhartpur, Narwar, etc., a dagger.

Those of Nágpúr, Chanda, Haidarábád, Aurangábád, etc., a sword, hence called 'shamshírí.'

Those of Ságar, Jálaon, Srínsgar, Kálpí, Tahrí, (the Bálásáhí) have a trident or trisúl with a cross bar.

The coins of Bhopál, Bhilsá, and Ráthgarh are easily known by a rude figure resembling a coat of mail.

The Kotá, Bándí, and Pratápgarh coins have a triple bow or knot, sometimes varied: the inscription of the latter rupee is in Nágarí.

The Ajmír, Oudipár, Sálimsáhí, old Chitor, Bhilárá, and Krishnagar coins; and, with some modification, those of Jaipár and Mattrá, have a "|= jhár, 'sprig' or six-leafed branch.

Those of Madras, Arkát, Chandor, Sháhpúr, have a small lotus or trefoil.

The Jodhpur, Kochaman, Bapusahi, and Pali rupees have a kind of small sceptre following the alif of the word shah. shah.

The Indor rupee is well characterised by the solar effigy of the Suraj-vansi princes; the Maheswari of Holkar by the symbol of Mahádeva; while the Srisáhi of Ajmír has the word at on the field.

The Jabalpur rupee is distinguished by bearing the san or year of reign in Nagari characters. That of Ujjain has merely four squares, or a kind of chequer.

The crescent and star are common emblems on many coins,

Of the Nepálese, Assamese, and other peculiar types, a better idea will be formed from the outlines in the accompanying plate: but the following memoranda of the symbols on the pagodas of Southern India will be useful, as we have no specimens whence to delineate them:

Extracted from a note of Mr. Wilson's 'Cabinet Specimens.'

#### DEVICES ON COINS OF SOUTHERN INDIA.

Madras pagoda, The figure of Venkateswara, and Alamelu and Mangama Pulk Bunder do. his two wives. Venkatapati do. Harpanhali, Scott. A rude figure of Nrisinha, Lakhsmi Nrisinha, and on Portonovo, Sravanori, ( some also Pratapa Krishna. Sahibari, Jamsheri, Ikkeri, Contarài, Maisur, the figure of Uma Maheswara. Haidari, Sultani, Bangalore, etc .- the letter T. Dürghi, Chitaldrug, the lotus. The Shuli pagoda; -the trisul. Tanjore, Gapalli, Gatti, the Kattar or dagger. Virurai, Panchakal, Giriye; a gan. Chakri, a Tripati coin; a diagram on one side and Tripundra on the other. Gulgi fanam ;-a plough.

## TABLES OF BULLION IMPORTED, EXPORTED, AND MINTED.

As a matter of curiosity rather than with a view of furnishing data for calculating the numerical amount of the circulating medium of the provinces under the Bengal Presidency, a statement has been added in two tables1 of the quantity of gold and silver bullion coined at the mints of Calcutta, Benáres, Farrukhábád, and Ságar respectively, from the year 1800, to the 30th of April, 1833, inclusive; and also a statement of the imports and exports of bullion at Calcutta, extracted from Wilson's report on the commerce of the port, printed in 1828, the years since expired being added from the same official records. It will be remarked that of the whole bullion minted, a large proportion has been 'on account of Government.' This has chiefly consisted of the re-coinage of worn-out rupees or the conversion of native coins, remitted from the different treasuries, into Government standard. The same process must be continually going forward, inversely, with the English coin in all the native states, so that it becomes impossible to estimate correctly the quantity in actual circulation.

The total value of the coinage at the four mints for the period of thirty-one years has been 53,322,600 rupees.

Leaves bullion disposed of in the country ..... sikká Rs. 290,446,100

<sup>&</sup>lt;sup>1</sup> [These are omitted as the totals and results are incorporated in the succeeding observations.]

The coinage of the several mints for the same term of eighteen years was as follows:

Calcutta mint	203,615,962	4	5
Benáres mint	88,329,359	0	6
Farrukhábád mint	47,252,842	9	11
Ságar mint	4,324,775	9	9

Making altogether	fractions omitted	343,522,940
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Being an excess of one-fifth above the import, or ..... Rs. 53,076,840

The coinage of the native mints may be jointly estimated at onehalf of our own, which will give a rough total of 50 karors of rupees for 18 years, or three karors per annum for the coinage of the Bengal Presidency; being 150,000 per diem for 200 working days.



TABLE of the Gold Coine of India.

Denomination.	Weight Asser in grains, ear, grs.	20.000	Touch	Touch	Intrinsie	value of 100.	
		or pure gold in 100 parts.	Pure contents in grains.	In Calcut- la Gold Muhrs,	In Madras or Bombay gold rupees	Remarks.	
MUHE.		car.gra.					[1750.
Ahmad Shah	207.00	W.1 24	85.1	176.27	93,937	105.874	Coined at Dihli,
Akbar	159.00	B. 2 0	100.0	159.00	84.732	96,361	ditto at Agra, 1560
Akbar, jaljaláli	186.60	B, 2 0	100.0	186,60	99,430	113,089	ditto at Lahor.
Assam	173,50	W.5 04	70.0	121.54	64.769	73.662	
old	173.00	W.2 2	81.0	140,11	74,666	84,921	
Benares	168.44	B. 1 1	96.9	163.17	86,956	98,896	
Batavian, 1783	242.60	W.3 11	77.9	188.90	100.665	114.479	Dutch E. I. Comp.
*****	243,60	W.4 0	75.0	182.70	97,361	110,725	Dates In I. Comp.
n 1796		W.5 0	70.8	173.01	92,198	104.857	
Dombon ald	214.25	B. 0 31		168.70	89.903	102,243	
Bombay, old	177.00		95.4		77.709	88,377	
,, later	174,99	W.2 0	83.3	145.82	87.759	99.807	Legal exchange
,, newstd.1800	179.00	B. 0 01	91.9	164.68		100,000	value, 15 Bom. Rs.
., do. 1830	180,00	standard	81.7	165.00	87.929		
Calcutta, old std.	190.804	B. 1 31	99.2	189.40	100.934	114.786	Still coined here.
, new std.	204.710		91.7	187.65	100.000	113,727	Legal value, 16 Rs.
Dihli	167.00	B. 1 21	98.2	163.96	87.373	99.364	Date not given.
Haidarábád	172.18	B. 1 0	96.1	165.45	88,171	100,263	
Jainagur	174.99	B. 0 2	93.7	164.05	87,428	99.398	Struck at Jaipur,
Lukhnow	166.00	B. 1 31	99,2	164.70	87.771	99,820	Pure contents as in silver coin.
Madraagoldrupee	180.00	standard	91.7	165.00	87,929	100,000	Legal value, 15 Rs.
Puna muhr	159.55	B. 2 0	100.0	159.55	85.023	96,694	
R4si	167.50	B, 0 34	95.1	159.21	84,845	96,486	
another		W.4 37	74.1	86,48	46.087	52.325	
Shah 'Alam, 1770		R. 1 2	98.2	186,80	99,547	113.212	From Kelly.
another		B. 1 24	98.7	188,50	100,453	114,236	Current in Sarat
Sunamula	178.26	W.0 0	91.1	162,47	86,582	98,465	fand Gujarát.
Surat (average)	178.00	standard	91.7	163.17	87.307	99,307	fame o dates
Shah Jahan	168,00	B. 1 34	99.8	167.60	89,315	101.575	Having signs of the zodiac-rare.
PAGODA, HÚN,					100		
OR VARÁHA.	0.3600	Date Name of the	riesoral)	angement)	in results.	-585-5366	[still coined.
Anandrái	52.46	W.4 37	71.1	37.30	19,876	21.708	Travancore Raja,
Bangalor	52.87	W.2 21	81.0	42,82	22,818	25,952	Under Haidar.
Bahaduri (Battar)	52.71	W.1 2	84.6	44.61	23.775	27.032	At Seringapatam, 1960
Dharwar	50.52	W.3 3	76.0	38.42	20.473	23,280	In Karnatic, scarce
Darbiri	50.53	W.2 21	81.0	40.96	21,830	24.827	Maistir.
Durgi pagoda	51.55	W.2 1	82.3	42.42	22,606	25.714	Coined at Chital-
another	51.46	W.4 01	74.7	38,46	20,496	23,315	drúg.
Parrukhi (Calleut)	52.90	W.1 14	85.7	45.32	24,163	27,466	Coined by Tipu.
	50.76	W.3 2	76.8	39.00	20.783	23,633	Former Raja.
Harpanhali, old.	51.10	W.3 0	79.2	40.45	21,558	24.520	Current at Bellary
111. 7 -14 new	52.40	W.2 14	81.5	42.71	22.762	25.884	Coins of Maisor and
Ikkeri, old	FA FA	W.1 3	84.4	44.30	23,606	26.851	Bedror mints so called
, new	52,00	W.1 3	84.4	43.87	23,380	26,589	Trichinopoly.
Jamshari		standard	91.7	42.01	22,387	25,464	Exchange at Ma-
Madras	45.83	standard	100000000000000000000000000000000000000	84.00	44,764	50.927	
" double	91.64		91.7				dras, 3; rupees.
, star, average	52,40	W.2 2	81.2	42.55	22,780	25.907	(Columbia are
Muhammadshâhi		***	-		01 000	04.000	(Coined by Mah.
old	50.53	W.2 32	79.4	40.14	21.388	24.327 20.585	Ali Khán, Na- wáb of Karnátic
	45.30	W.4 0	75.0	33.97	18,104	- SHE 505	A mark by mile Williams \$4.5.

<sup>&</sup>lt;sup>1</sup> Srinagarpatam.

Denomination.	Weight Assay in in grains. car, grs.	MATE -	Touch	220	Intrinsic	raise of 100.	
		poid in 190 paris.	Pure contents in grains.	In Calend- ta Gobi Muhrs,	In Madras or Bombay gold rupess	Beunrks.	
		0. grn.	200				500 4 00 to
Naidi	52.82	W .1 3	84.4	44.57	23.752	27.010	[Khan Chitoz
Pedatolá		W. 1 21	84.9	44.57	23,751	23.599	By Fatch Ull
Paliampatpagoda		W. 8 3	55.2	28.60	15.240	17.332	Near Trichinopol
Porto Novo	52.21	W. 7 31	58.8	80.73	16,390	18.640	A Portuguese coi
Pulkbunder	51.50	W. 1 2	85.4	43.99	23.442	26.655	Same as Madras,
Sadaki, double		W. 12	85.4	90.33	48.136	54.748	
Sáttári		W. 3 3	76.0	38.02	20.262	23.042	Coined at Sattara
Shir Khani	49.50	W. 13	84.4	41.77	22,257	25.316	Parameter State
Scott		W 63	63.5	33.19	17.686	20.119	Same as Porto Nov
Sravanur		W. 2 07	82.6	41.65	22.196	25.247	
another	51.50	W. 4 0	75.0	38.62	20,583	23.406	
Star (see Madrus)	0.4100		9.00,0		20,000	20.400	[Maliapur
St. Thomé	75.33	B. 0 31	95.1	71.60	38.159	43.399	Double pageda e
Súbári, i pagoda		W. 1 1	86.2	22.58	12,030	13.692	Postore bulloca c
	26.20	W. 1 2					Colonel bar Ting
Sultání	52,40		84.7	44.35	23.635	26.873	Coined by Tipu.
Travaneore	51.00	W. 2 17	81.8	41.70	22.224	25.270	Anundrái, still coine
Venkatapati	51.47	W. 3 3	76.0	39.14	20.856	23.724	At Venkatagiri.
PANAM OR PANAM			- m	111.75		40.55.95.1	[their purity
Aparanj	2.68	W. 0 2	89.6	2.41	1.279	1.517	So called from
Arialur	5.34	W.11 2	43.7	2.33	1.244	1.415	Near Tanjore.
Chakri	5.31	W.16 0	25 0	1.33	0.708	0.805	Tripati coin.
Contarài		W. 8 0	58.3	3.41	1.819	2.068	Ikkeri or Maista
Gatti	5.39	W.11 11	44.3	2.38	1.271	1.445	Tripati-Chitavel
		W.10 1	48.9		1.465	1.666	Marked with a ros
Gulgi	5.62			2.15	- 10 . 0		At Madhyargun,
Gopáli, old		W.16 2	22.9	1.18	0.629	0.715	near Kudalur.
Walles or Wall		W.16 0	25.0	1.29	0.686	0.783	Anandrki fanam,
Káliam, or Káli.	5.44	W.13 2	35.4	1.92	1.026	1,166	Coimbatore,
Panchkol	5.61	W.10 23	46.6	2.65	1.410	1,603	Coined at Salem,
Salem	4.69	W.15 1	27.9	1.31	0.696	0,792	American Company of the Company of t
Suli	5.15	W.16 0	25,0	1,29	0.686	0.780	Tinivelly.
Tanjore		W.15 0	29,1	1.59	0.848	0.964	Walshan
Viraraya		W.10 31	46,6	2.72	1.452	1.651	Malabar.
Wodiar	5.44	W.11 2	43.7	2.38	1.267	1.441	Ditto.
POREIGN GOLD							Net produce of 100 at Calcutta in sikks ru- pecs; at 17 Rs, per gold mahr isodocting soin- age duly.
DoubloonSpanish	416,50	W. 0 2	89.6	373.11	198.834	226.125	3312,575
, 1786 to 1826		W. 1 04	87.0	362.70	193.286	219.825	3220,145
" Chili, 1823		W. 1 01	87.3	363.79	193.865	220.473	3229,791
"Columbia1826	417.00	W. 1 3	84.4	351.4	187.552	213,296	3124,646
" Pera	417.00	W. 1 01	87.0	362.0	193.286	219.825	3220,145
Ducat, Dutch	53,50	B. 1 21	98.2	52.3	27.996	31.844	466 413
Guinea, English.	and the second	standard	91.7	118,70	63.258	71.945	1053,879
Sovereign, ditto		standard	91.7	113.10	60.271	68.544	1004.115
20 franc, French			90.0	89.62	47.757	54.313	795,632
Lohannese Dorte	999.50	W. 0 01	200	2,0027221	108.381	123,258	the second section is a second
Johannese, Portg.			91.4	203.38	and the contract of		1805,628
Moidore, ditto	124.00	standard	91.7	113.67	60.573	68.885	1009,146
Sequin, Venetian	52.40	B. 1 3	99.7	52.27	27.853	31.673	464,031
Toman, Persian	73.00	B. 1 01	96.1	70,15	37.382	42.511	622.785
Copang, Japanold	273.00	W. 1 2 W. 6 0	85.5 66.7	233.20 134,50	71.676	135.272 81,555	2079,268 1194,123

## SUPPLEMENTARY TABLE OF GOLD COINS.

Since the Table of Gold Coins, page 43, went to press,1 an opportunity has been afforded of adding largely to its contents, from the examination of a remittance of 725 old gold muhrs sent from the general treasury to be melted and re-coined. On a laborious scrutiny of them, many pieces of all the emperors of Dihli, since the time of Akbar, were discovered; and a few anterior to that monarch; besides a large store of Bhopál, Jaipúr, and Kotá or Búndí, muhrs, casily recognised by their respective symbols. The whole were weighed and assayed, and the results are given in the present supplement, arranged in two classes, the first, in the order of the emperors; and the second. alphabetically, in that of the localities. As there was considerable difficulty in recognizing many of them, in which part of the name was wanting, it may be convenient here to accompany the table with a catalogue of the inscriptions most commonly met with on the gold coins of each monarch, from Akbar downwards. Some of them, as will be seen, have two or three different forms, which is very perplexing to the examiner. The term Sáhib-kirán 1 (lord of the kirán, or 'fortunate conjunction of the planets") was first applied to Taimur; afterwards to Sháh Jahán, as Sáhib kirán Sání (the Second); and lastly to Muhammad Sháh.

It is worthy of remark, that most of the gold muhrs in the present table agree very nearly together in weight and value: and the average value of 100 may be taken as equal precisely to 100 Bombay and Madras new gold muhrs (or gold rupees as they are anomalously styled). The Calcutta gold muhr has no equivalent in the list: it would therefore be no innovation, but rather a restoration of the former system, which prevailed for three hundred years unremittedly, to abolish the Calcutta gold muhr of 204.71 grains, and adopt in its place the 180-grain muhr of Southern and Western India for the standard of the Bengal Presidency. Thus, were the sikká rupee abolished, there would remain but one gold and one silver coin throughout British India, both containing the same weight of precious metal, so that the relative value of gold and silver would be at once known; the present nominal rate of sixteen rupees 3 might still continue the legal equivalent of the muhr, since the value of gold is permanently risen nearly to that extent.

<sup>&</sup>lt;sup>1</sup> [I have allowed this to stand as it appeared in the original, as it did not seem that any material object would be gained by an incorporation of the two Tables ]

صاحب قران ا

<sup>&</sup>lt;sup>3</sup> [The old muhr sells at 17.8, its legal rate being 16 rupees. The influx of Australian gold has of late considerably reduced the relative value of that metal in the bazars of India.]

# INSCRIPTIONS ON MURRS OF THE MOGRUL EMPERORS. AKBAR.

Obverse:

جلال الدين محمد اكبر بادشاه غازي

'The glory of the faith, Muhammad Akbar, the victorious emperor.' 1

Reverse: The Kalimah.

This inscription, though apparently so common, is not mentioned in Abú'l Fazl's list of the royal coins; the specimens vary in date from 972 to 985 A.H.

JAHANGÍR.

جهانگير شاه ابن اكبر بادشاه ضرب برهانپور امان الله

'Jahángir Sháh, son of Akbar Bádsháh. Struck at Burhánpúr, May God preserve him.'

# SHAH JAHAN.

(a) A plain disc-

Obverse: the Kalimah, 3 TUJO72

لا اله الا الله محمد الرسول الله ضرب برهانپور سنه الهي ٥٢

'There is no God but God, etc. Struck at Burhanpur in Ilahi year 82."

Reverse:

شهاب الدين محمد شاهجهان غازي صاحبقران ثاني

'The bright star of the faith, Muhammad Shah Jahan, Ghazi Sahib-kiran the second.'

(b) The chaháryárí muhr-

Obverse: A square centre, containing the Kalimah; around which are the names of the four companions of the prophet, Abubakr, 'Omar, 'Osmán, and 'Alí.

لا اله الا الله • عمد الرسول الله ابوبكر عمر عثمان على

Reverse: Same as before: 'San jalús v.'

(0)

Obverse: A lozenge shield, containing the Kalimah, around which, 'Zarb Allahábád, san 1031.'

Reverse: As in the other specimens.

AUBANGZÍB.

Obverse:

در جهان سکه زد چون مهر منیر شاه اورنگ زیب عالمگیر 'Shah Aurangzib' 'Álamgir issued coin, brilliant as the sun.'

ا غازي] is more properly 'a warrior of the faith,' and in this sense we must understand its application on these coins.]

Reverse:

ضرب مستقر الخلافة اكبراباد سنة جلوس ميمنت مانوس 'Minted at the seat of the Khilafat, Akbarabad, the year of the reign of fortunate associations.'

BAHADUR SHAH.

Obverse:

سكة مبارك شاه عالم بهادر بادشاه غازي سنه ١١٢٣

'Auspicious coin of Shah 'Alam Bahadur, Badahah Ghazi, A.H. 1123.'

Reverse:

ضرب خجسته بنیاد سنه جلوس ه

Struck in the favored city, year of the reign 5."

JAHANDAR SHAH.

Obverse:

سکه زد بر سیم و زر چون مهر و ماه ابوالفتح جهان دار شادغازی ابادشاه ۱۱۲۴

'The father of victory, the Emperor, Jahandar Shah Ghazi, struck coin in silver and gold, resembling the sun and moon. A.H. 1124."

Reverse: As in Aurangzíb's coins.

FARRUKUSIR.

Obverse:

سکه زد از فضل حق بر سیم و زر فرخسیر بادشاه بهر و بر

'By the grace of God, the monarch of sea and land, Farrukhsir, struck silver and gold coin.'

Reverse:

سنه ٦ جلوس ميمنت مانوس ضرب دارالنحلافة شادجهان.آباد 'The sixth year of his prosperous reign. Minted at the seat of the Khalafat,

'The sixth year of his prosperous reign. Minted at the seat of the Khalafat, Shah Jahanabad (Dihli).

MUHAMMAD SHÁR.

(a)

Obverse:

مكة مبار*ك محمد* شاه بهادر بادشاه غاز*ي* سنه ۱۷

'Auspicious coin of Muhammad Shah, the victorious emperor, 17th year.'

Reverse: As usual; sans 2 to 17.

(b)

The same inscription with the addition of صاحب قران ثاني chiefly of the year 12; a debased coin.

<sup>&</sup>lt;sup>1</sup> [ This legend is ordinarily peculiar to Ahmad Shah.]

(c) Obverse:

سکه زد بر سیم و زر چون مهر و ماه ابوالفتم غازی الدین محمدشاه

The father of victory, defender of the Faith, Muhammad Shah, struck silver and gold coin resembling the sun and moon."

Reverse: As in (a); and of various years.

# ARMAD SHAR.

Obverse: Same as the coin of Farrukhsir, with exception of name:

Reverse: As usual.

# ALANGIR II.

There are also three varieties of inscriptions on his coins (the reverse of all being as usual).

(a)

Obverse:

سكة مبارك بادشاه غازي عالمگير ثاني

'Fortunate coin of Badshah Ghazi 'Alamgir the second,'

(6)

Obverse:

ابوالعدل عزيز الدين شاه عالم كير بادشاه غازي خلد الله ملكه

The father of justice, chosen of the faith, Shah 'Alamgir II. Badshah Ghazi. (May God perpetuate his kingdom!)' Sans 2 and 3.

(0)

Obverse:

سکه زد بر هفت کشور تابان همچون مهر و ماه عزيز الدين عالمكير ثأني بأدشاه

'Chosen of the faith, 'Alamgir the second, struck coin in the seven climes, shining like the sun and moon.' A.H. 1170 to 1173. Sans 3 and 6.

SHAH 'ALAM.

Obverse:

سكه زد بر هفت كشور ساية فضل اله

Reverse:

حامي دين محمد شاه عالم بادشاه The same as on the Company's coin, explained at page 2. All later than the 19th san, bear the symbol of a royal umbrella.

1 [ I distrust this reading; but not having the original coin to refer to, I do not venture to amend the attribution .- E. T.]

[I cannot well afford the space requisite to complete the list of the coinage of the Moghul Emperors of Hindústán; but I venture to insert the legend of perhaps the most interesting coin in the whole series; together with two novelties, hitherto, I believe, unpublished.

I. Silver coin of Núr Jahán Bígam. Struck by order of Jahángír, a.n. 1034.<sup>1</sup>

Obverse:

زنام نور جهان بادشاه بیگم زر سنه جلوس ۲۰ Reverse:

A second coin in the British Museum of the same date is seen to have been minted at Ahmadábád.

II. Silver. Murád Bakhsh. Three coins in the British Museum.
No date.

Obverse: Square area—The Kalimah.

Margin-The names of the Four Companions of the Prophet.

Reverse: Square area,

معمد مرآد بخش بادشاد غازي

Margin:

ابو المظفر تاج الدين ضرب سورت

III. Silver. Rafí<sub>t</sub>ud-darját. Five coins in the British Museum.
A.H. 1131.

Obverse:

سکه زد باهزاران برکات شاهینشه بحر و بر رفیع الدرجات ۱۱۳۱ Reverse:

ضرب سنه احد جلوس میمنت مانوس

other specimens bear the names of Lahor with مستقر المحالفة المحالفة شادجهاناباد and Dihlí under the style of مستقر المحالفة شادجهاناباد.—E.T.]

<sup>&</sup>lt;sup>1</sup> [ Marsden, p. 635; Anquetil du Perron, p. 221;—Láhor, A.H. 1035.]

### Supplementary Table of Indian Gold Coins.

(The letters (a) (b) and (c) refer to the inscriptions in pages 46 to 48.)

	Weight		0545500	Touch or pure	Pare	Intrinsi	e value of or.	
enomination.	grains.	Ass	ny in , 418.	gold in too parts.	confenta in; grains.	In Cal. gold muhrs.	In Mad. or Born, gold rs.	Remarks.
1-ud-din 1	163,80	B.	0 27	94.5	154.84	82.516	93,843	л. р. 1288 Э
	166.50	B.	0 24	94.2	156.96	83.645	95.128	Abū'l Muzaffiar.
the second secon	167.40	B.	0 31	95.1	159.12	84.795	96,435	A.D. 1396, Dibli.
	162.44	B.	2 0	100.0	162.44	86.565	98.448	A.D. 1556, Dihli.
and the second s	165.60	B.	1 13	97.4	161.29	85.951	97.750	Injured by solder of ring.
angir 1	166.90	B.	2 0	100.0	166.90	88.942	101.152	At Barhanpur.
	168,65	B.	1 11	97.4	164.26	87.534	99,550	Plain field,
	168.20	B.	1 3	99.8	167.76	89.402	101.674	Square shield.
	168,40		dard.	91.7	154.37	82,263	93,551	Vitiated by solder?
12	165.58	B.	1 33	99.5	165.15	88.008	100.090	Struck at Allaha- bad.
Patas 1	170.70	B.	$1 \ 3\frac{3}{4}$	99.7	169,37	90.256	102.647	Supposed from symbol 39,
doubtful * 1	164,70	w.	2.2	81.3	133.82	71.313	81.102	Probably forged,
angzib, plain 1	168,68	B.	2 0	100.0	168,68	89.890	102.230	Several,
	168,29	B.	1 2	98.0	164.78	87.812	99.867	Dihli, A. H. 1076.
	162,00	B.	2 0	100.0	162.00	86.330	98.182	1100, these vary
	168,20	В.	2 0	100.0	168.20	89.634	101,939	only in the place
	167.65	B.	2.0	222001	and the second second	The second second		of coinage.
the second secon	167.60	B.	0 21	100.0	167.65	89.371 84.430	96.021	or comage.
477777	2 T T T T T T T T T T T T T T T T T T T	DESCRIPTION 6.		94.5		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	March Control of Control	100
	170.20 164,00	W.	2 0 2 31	79.7	170.20 130.69	90,700 69,644	79.204	No place of coin- age, others Dihli
Aurungábád ! Khujistah	164,67	В.	2 0	-	164.67	87.756	99.803	а. н. 1097, Lahor
	165.60	B.	1 0		158.70	84.572	96.182	
		100		***		1 - 2 - 3 - 3 - 5 - 5 - 5 - 5		
The state of the s	168,55 168,35	B. B.	1 3# 1 1#	97.4	167.23 163,53	89,119 87.145	101.353 99.168	Sháh 'Alam r. struck at 'Khu jistah buniád, (Dihli), in 1123
ándár Sháh	167.25	B.	2 0	100.0	167,25	89,128	101.364	Struck at Jonpur
rukhsir, san 6.	167.33	B.	1 01	96.4	161.23	85,922	97.717	Dihli, A.H. 1125.
	168.00	B.	1 0	96.4	161.87	86.263	98,106	
	167.12	B.	1 1	96,9	161.90	86.278	98.122	Struck at Dihli.
	168.07	B.	1 1	97.4	163.69	87.235	99.200	(Average.)
	164.79	B.	1 3	99.0	163.07	86,900	98.830	6
	166.70	B.	1 31	99.2	165.40	88.141	100.241	
	166.30	B.	1 04	96.4	160.24	85,391	97.113	San 1.
	167.30	B.	2 0	100.0	167.30	89.155	101.394	San 20. See p. 21
	168.30	B.	1 31	99.2	166.98	88.987	101.203	? Dacca or Dihli,
	166.90	В.	1 2	98.5	164.29	87.551	99.571	. Armeen or armin,
	167.90	В.	1 3	99.8	167.46	89.241	101.493	
	164.70	W.	1 0	87.5	144,12	76.800	87.344	Ill-executed, Dih

The coins marked thus \* appear to be forgeries; there are twenty-seven of them bearing the superscription of Aurangeth, badly executed, and nine having that of Farrukheir, and the date A.B. 1120, with the same san, juide 29, ulthough the latter emperor only reigned six years.

<sup>&</sup>lt;sup>1</sup> This debased multr is very peculiar:—it was probably coined under Markthi influence—there were eighty-three of the sort, all of the same date.

	Weight	A	eay in	Touch or pure	Pure	Intrins	de value of 100.	2000
Denomination,	grains.	OI OI	ir. gra.	in too parts.	in grains,	In Cal. gold muhrs,	In Mad, or Bon., gold re.	Remarks,
Ahmad Shah	167.65	B.	1 3	99.0	165.90	88.410	100.547	
Barhánpúr	169.80	B.	2 0	100.0	169.80	90.487	102,909	
'Alamgir II. san 1	167,30	B.	1 31	99.2	165.99	88.458	100,602	Struck at Dihli (a)
san 3 A. н. 1170-	167,78	В.	1 3	99.0	166.03	88.478	100,624	Inscription (b).
1173	167.50	B.	1 23	98.4	164.88	87.867	99,929	Inscription (e).
var. sans	168.00	B.	1 3	99.0	166.25	88,595	100.757	Struck at Siwai.
Shah 'Alam, Dihli sans 3 to 151		B.	1 13	97.4	163,05	86,890	98.818	Present inscrip tion. See page 2
sans 19 to 34	166.31	В.	2 0	100.0	162.85	86.783	98.696	With the chhata,
Barhanpur	169.50	B.	1 3	99.5	168.62	89.857	102.192	Same as old Bom.
Farrukhabad .	165.75		ndard.	91.7	151.94	80.968	92.084	? Average of 16.
Lukhnow	166.80	B.	1 3	99.2	164.07	87.435	99,438	Under the Nawab
Súrat, san 19.	170.15	В,	1 33	99.8	169.71	90.438	102.853	Same as old Bom.
Akbar II	166,60	В.	2 0	100.0	166,60	88.782	100,970	With dagger.
Local Gold Coins.	204.00	n .						
Agra	164.79	B.	1 3	99.0	163.07	86.900	98.830	Muhammadshāhi.
Allahábád¹	162.00	W.	10.0	50.0	81.00	43.165	49.091	Debased? false.
Arkat, M.S. san 1.		B.	1 04	96.4	160.24	85,391	97.113	Muhammadsháhi,
Benares, san 20 Bhopal, san 27	167.30	B.	2 0	100.0	167.30	89.155	101.394	
Barhanpür	167.50	B. B.	1 05	96.4	164.01	87.402	99.400	Average of 149.
Etáwa	169,50 167,90	B.	1 3 1	99.5 99.8	168.62 167.46	89.857 89.241	102.192 101.493	Same as old Born. Muhammad Shah
Farrukhábád	165.76	stan	dard.	91.7	151.94	80.968	92,084	and Farrukhsir. Company's new
Islamabad, Dacca?	168 20	B.	1 21	00.0	100 00	80.604		standard.
Jaipur, san 8	186.60	W.	1 31 2 0	99.2	166.98	88.987	101,203	Muhammadsháhí,
san 22	168 11	В.	2 0	100.0	138,83	78.985	84.141	? False money.
san 23	167.94	B.	2 0	100.0	167.94	89.589	101.888	These are averages
san 24		B.	2 0	100.0	168.12	89.498	101.784	of many, all
Var. sans		B.	2 0	100.0	167.80	89.421	101,889	new coins of the
Siwai, san 18.	168.10	B.	1 31	99.2	166.79	88.881	101,697 101,083	Jaipur mint. Has the same sym- bol.
Kotá, sans 1 to 18.	167.08	B.	1.0	95.8	160.12	85.329	97.043	Known by the
San 19	166.72	B.	1 2#	98.2	163.68	87.225	99,199	Kota and Ban- di symbol.
Lukhnow, old	165.80	B.	1 31	99.2	164.07	87.435	99.438	Machhlisáhi.
new	165.65	B.	1 2	98.5	163.07	86,898	98,828	Shirsahi.
Ujjain, san 2	166.90	B.	1 21	98.5	164.29	87.551	99,571	Muhammadshāhī.
Patna, Shahjahan		B.	1 34	99,2	169,37	90.256	102.647	? (From symbol 39, p. 67.)
Ságur i marked <b>H</b> T	100000	В,	0 07	92.2	151.83	80,912	92.019	This monogram is
Sagar, Srinagur?	166.25	B.	12	98.0	162.79	86.750	98.659	With the trisul.
Surat, san 19	170.15	B.	1 34	99.8	169.71	90.438	102.853	Old Bombay.
	164.00	W.	8 15	56.7	93.10	49.615	56.424	Khurshid Shah.

(For explanation of the several columns of this table see page 36; and for converting decimals into 605a 55d ps'is, see the Table at page 12.)

<sup>1</sup> The inscription on this coin, of which there are three specimens, is very badly executed; the pieces are most probably forged.

### Table of the Silver Coins of India.

(To find the value in sikka rupees, deduct one-sixteenth from the value in Farrukhabad rupees: the latter are the same as Madras and Bombay rupees. For the value in £ sterling, divide by 10.)

Name.	Weight.	Assay.	Touch.	Pure contents,	Intrinsic value of 100,	Remarks.
	Grains,	Dwis.	_	Grains.	Pd. Ra.	
Agra rupee	171.62	Br. 7	94.5	162.33	98.381	Struck at Agra by?
Ahmadábád old	178.00	Wo. 4.5	89.8	159.83	96.864	Gujarat and Cutch.
old	179.92	Wo. 17.5	84.4	151.81	92.004	Formerly coined.
new	180.75	Wo. 15	85.4	154.39	93.568	Present currency.
hāli	174-77	Br. 12	96.7	168.94	102.390	Coined for city cur- rency.
Ahmad Shah	177.25	Br. 15	98.0	173.70	105.272	(Equal to Dibli standard, 1750.)
Ahmadnagar, old	174.50	Br. 14.5	97.7	170.57	103,376	Same as Dihli rupee.
Ajmir, old ?	168.60	Wo. 11	87.1	146.82	88.982	Sri sahi, cmn. cur- rency introduced by Tantia.
Sri sāhi	168.17	Wo. 27.5	80.2	134,89	81.751	or Bápúsáhí?
32nd san	168.00	Wo. 21	82.9	139.30	84.428	Coined in 1792.
Allahábád	172.03	Stand.	91.7	167.70	95.573	Sans 18, 21, and 26,
Australia in	1,2.00	Name of the last o	22.1	0	30	(1778-86).
Alamgir II, 1759	179.50	Br. 16	98.5	176.51	106.974	Equal to the Sa. rup.
Anásáhí	176.25	Wo. 7.5	88.5	156.05	94.578	Coined at Kaira, Gu- jarat.
	177.25	Wo. 14.5	85.6	151.77	91.982	Coined at Pitlad, do.
Ankusi, old	172.00	Br. 3.5	93.1	160.17	97.075	Standard of Puna,
new		Br. 2.5	92.7	160.85	97.484	also called Chin-
	162.38	Wo. 81.5	57.7	93.71	56.793	suri.
Aracan, (Mug.)	Committee of the second	Br. 7.5	94.8	167.26	101.340	Coined in Calcutts
Arkat, (Company's)		Br. 10	95.8	169.86	102.948	for the Dacca and
1759	177.25			167.47	101.500	Katak districts,
1782 1788	174.00 177.25	Br. 11 Br. 11	96.2 96.2	170.60	163.396	also the old cur-
.12	170.00	D- 4.5	00.5	101.05	97.729	The Surat Arout
old	172.39	Br. 4.5	93.5	161.25		
1766	171.47	Br. 3.5	93.1	159.68	96.775	mentioned in Reg XXXV. 1793.
new	188.00	Wo. 4.0	93.3	169.20	102.545	The Madras del. ru
Katak	173.89	Br. 9.0	95.4	165.92	100.656	Formerly cur, here,
French	173.13	Br. 9.5	95.6	165.55	100.334	Coined at Pondi- cherry.
Garnáli	172.20	Br. 7	94.6	162,88	98.716	tagong).
Phurshi	172.78	Br. 7.5	94.8	163.78	99.258	XXXV. 1793.
uncertain	169.33	Wo. 17.5	80.2	142.88	86,592	
Jaházi	173,673	Br. 7.5	94.8	164.53	99.716	gong by sea.
Assam, mixed	174.05	Br. 8	95.0	165.35	100.215	
Rudra Singh		Br. 15	98.0	169.59	102.782	of Assam and the
Siva		Br. 13	97.1	168.34	102.025	neighbouring dis
Pramatta		Br. 12	96.7	164.24	99.537	tricts : coined n
R5jendra	Control of the control of	Br. 12.5	96.9	168.47	102.100	
Lakhsmi		Br. 13	97.1	168.44	102.084	hat.
Gaurinath		Br. 10	95.8	166.94	101.177	Restored to thron
	W 100 Y 10 Y 10	Br. 6	94.1	163.83	99.303	in 1793.
Bheast	174.00			10000000	102.159	14 11 600
Bharat	174.75 176.50	Br. 11.5 Wo. 11	96.5 87,1	168.56 153.70	93.158	Anásáhí? Gujarát Baroda, Kaira,ete

Name.	Weight.	Assay.	Pouch,	Pure contents.	Intrinsic value of 100,	Remarks.
	Grains,	Duts.	75000	Grains,	Fd. Rs.	
Aurangábád	170.86	Wo. 23.5	81.9	139.89	84.787	Coined by Govind Bakhshi, (Haidar- ābād), see Govind Bakhshi
Bābāsābī	177.00	Wo. 14-5	85.6	151.56	91.849	Bakhshi. Coined at Baroda from san 4 to 18.
Bagalkotá	172.30	Wo. 5	89.6	154.35	93,546	Mulharsahi (Hol-
Bálásábí	169.21 162.14	Wo. 8.5 Wo. 5.5	88.1 89.4	149.12 144.92	90.426 87.828	Old coinage of Sågar current in Gurral
Barelli	169.00 171.90	Wo. 6 Br. 4.5	89.2 93.5	150.69 160.80	91.328 97.453	and Bundelkhand Cur. in Rohilkhand
Baroach, old	169.28 177.06	Br. 5.0 Br. 7.5	93.7 94.7	158.61 167.84	95.945 101.720	Average of 4 lakhs. Now disappearing.
new Donale	177.50	Wo. 8.5	88.1	156.42	94.801	Present currency (1821).
Baroda Batavia, 1763	199.00	Wo. 20.5	83.1	165,41	100.254	See Babasahi. Coined by the Dutch
1803 Bhatúr	204.00 171.30	Wo. 30.5	79.0	161.07	97.621	Nava Ahmadaaaaa
Bilapur	171.82	Wo. 10.0 Wo. 14.5	87.5 85.6	149.89 147.12	90,841 89,165	Near Ahmadnagar. Current at Púna, in Concon, etc.
Benares, old	175.00	Br. 12	96.7	169.17	102.525	Under native daroga
old stand	175.00	Br. 11.6	96.6	168.875	102.348	By Reg. II. 1812, oblique milling.
since 1800	174.76	Br. 9.5	95.6	167.00	101.285	Average of rupeer brought for re-
1819-1829,	180.234	standard	91.7	165.21	100.134	The late Farrukha- bad rupee: mint
Bhikanir	174.00	Br. 11	96.2	167.47	101.500	abolished in 1830.
Bhilara	168.90	Wo. 21.5	82.7	139.69	84.663	Current in Ajmir.
Bhilsa, old	169.62	Wo. 12.5	86.5	146.65	88.882	Mint under Bhopal
another		Wo. 16.5	84.8	143.31	86,901	Nawab.
new	173.61	Br. 6.5	94.4	163.47	99,299	Reformed in 1827.
Bhopál another	171.38 169.25	Wo. 6.5	89.2 89.0	152.82 150.56	92.616 91.249	Coined at Bhopal. (Reformed in 1827)
Bhartpûr	171.86	Br. 10	95.8	164.70	99.819	see 'Bhilsa.') Average of many
Bindraban	156.67	Wo. 19.5	83.5	130.89	79.325	Average of many lakhs.
Bombay, old	178.33	Br. 12	96.7	172.39	104.282	Old Súrat rupce.
	178.75	Wo. 2.5	90.7	161.99	98.176	Ditto debased.
1800		Br. 0.5	92.0	164.68	99,200	Coined at Bombay and at Calcutta.
1829	180.00	standard	91.7	165.00	100.000	Present standard.
Bándi, 1819	171.66	Wo. 7	88.8	152.26	92.273	Currentin Ajmir and
1825	172.82	Br. 7	94.6	163.46	98.622	Bundelkhand.
Brazil, Pataka	407.99	Wo. 5	89.6	365.49	221.514	Brazilian dollar.
Brodera, old new	178.00	Wo. 1.5	91.1	162.51	98.490	PE -
Balabsáhi	178.50	Wo. 7	88,8	158.42	96.011	Coined at David
Bunder, tuksál	175.56 163.79	Wo. 15 Br. 85	85.4	149.957	90.880	Coined at Baroda.
Garnáli	174.66	Br. 9	95.2 95.4	166.66	94.502 101.005	
Barhanpur	178.80	Br. 8.6	95.2	170.23	103.171	Also called 'Parki,' coined by Sindia
Basra	990.00	Wa 11 "	40.0	100 12	70 000	in Khandesh.
Calcutta, old	280.00 179.666	Wo. 11.7 Br. 15	42.9 98.0	120.17 175.923	72.828 106.620	Persian Gulf. The old Murshida- bad 19th san sik- ka rupee.

Name.	Weight.	Assay.	Touch,	Pure Contents.	Intrinsic value of 100,	Remarks.
Section 1	Grains.	dwta,	2000	Grains.	Fd. Rs.	200010-0000
Calcutta, new	191,916	Stand.	91.7	175.923	106.620	By Reg. XIV. 1818.1
present	192.00	Stand.	91.7	176.00	106,666	By Reg. VII. 1833,
		II.				all receivable at
Cambay		Wo. 15	85 4	152.04	92.167	par. Current in Nawab's district.
Calání	172.66	Wo. 24	81.7	141.01	85.460	
Ceylon	134.00	Wo. 24	81.7	109.43	66.323	The rix-dollar of 1s.
	138.32	Wo. 5	89.6	123.91	75.074	9d. ?
Chambagondi	171.00	Wo. 15	85 4	146.06	87.917	Discount of 2 per cent. with Ankusi rupee.
Chanda	166.42	Wo. 13	86.3	143.54	86.991	Current in Nagpur
1819-24	169.70	Wo. 4	90.0	152.78	92.563	and the Narbadda
1825	165.15	Wo. 16.5	84.8	152.72	92.559	
Chandéri	173.00	Br. 1.5	92.3	159.66	96,766	One of Sindia's mints
Chandoli	170.15	Wo. 14.5	85.6	145.69	88.299	Gwaliar rupee.
Chandúri	172.00	Br. 1	92.1	158.38	95,989	Khandesh standard
another	168.70	Wo. 2.5	90.7	152.88	92,656	current in N. Con-
another	169.70	Wo. 1	91.3	154.85	93.849	can, at par with Ankusi rupee.
Chandrapúr	163.00	Wo. 19	83.8	136.61	82,735	Average.
	166.50	Wo. 5	89.6	149.16	90.397	
Chinsuri	172.50	Br. 3	92.9	160.28	97.140	Same as Ankusi of Puna.
Chitor	169.57	Wo. 28.5	79.8	135.31	82 004	Current in Ajmir.
Chaurasi	171.75	Wo. 3.5	90.3	154.94	93,901	Ikkeri.
Chaundà	164.85	Wo. 13	86.3	142.18	86.171	Some as Chanda ?
Chandausi, san 29.	171.10	Wo. 9.5	95.6	160.57	95,497	CoinedbyZábita-kház in Robilkhand.
Chalani	160.71	Wo. 27	80.4	129.23	78.324	Haidarabad.
Suluki	169.47	Wo. 28.5	79 8	135.22	81.954	ELAIGGI HOME.
Chappa	172.50	Br. 6	94.1	162.44	98.447	
Katak	172.18	Br. 6.5	94.3	162.33	98,380	Arkat rupce coined
						at Calcutta.
Cálpi	169.07	Wo. 11.5	86.9	146.88	89.021	Bundelkhand.
Chatrapar	169.00	Wo. 8.5	88.1	148.93	90,261	Raja Pratap Singh Bundelkhand.
Ducca	179.30	Br. 12	96.7	173.32	105.044	Same as the sikka rupee.
Deig	169.70	Wo. 7.5	88,5	150.25	91.064	Near Bhartpur.
Dihli	172.40	Br. 13	97.1	167.37	101.437	See Sonat, and the
Muhammad Shah	173.30	Br. 12.5	96.9	167.88	101.806	various súbahs ?
28th san	172.80	Br. 3	92.9	160.56	97.309	
	173.00	Br. 6.5	94.4	163.27	98,951	
Dollar, Spanish		Wo. 4.6	89.7	374.87	227.194	Since 1772, by law.
SHE SE SHE	415.68	Wo. 4.5	89.8	374.27	226.830	Average in England
	415.00	Wo. 5	89.6	372.21	225.584	Since 1812, average of Calcutta assays.
N. American	416,00	Wo. 6	89.2	371.25	225,000	By United States law
Dutch guilder	161.00	Wo. 1.5	91.1	144.53	87.503	By law, 162 grs.
English shilling	87.25	Br. 2	92.5	80.70	48.909	(Previous to 1830
crown	436.36	Br. 2	92.5	403.63	244.624	nearly 3 dwts. Br.
Etáwa	171.80	Br. 1.5	92.3	158.56	96.095	In the Doub,
French 5-franc		Wo. 4	90.0	275123	214.360	
a reason o-mane	384.50			347.26		By French law.
	004-00	Wo. 4.5	89.8	345.25	209.242	By Calcutta assays.

The standard of 1818-1830 was really a pennyweight too fine, in consequence of an error in the old standard plate of England, to which the assays of India were referred. The proper correction has now been introduced in both countries: and it has been to the assays in this table made prior to 1830.
The Sollars of the independent states of Mexico, Eolivia, Chill, and Peru, are of the same weight and value as the Spanish dollar; they varied during the revolutionary period.

Name-	Weight.	Азиц.	Touch,	Pure contents.	Intrinsic value of 190.	Remarka,
	Grains.	dwis,	120 60	Grains.	Pé. Re.	
Fath 'Ali shahi		Br 7	94.5	149.17	90.406	Late king of Persia.
another	143.39	Br. 9.5	95.6	137.12	83.100	died in 1833.
A. H. 1244	105.50	Br. 4.5	93.5	98.64	59.810	Struck at Hamadán,1
1245-48	105.12	standard	91.7	96.36	58.400	Struck at Shiraz.
Farrukhábád 39 san		Br. 6	94.1	153.23	97.073	Old native currency, average.
Company's	173.00	Br. 9.2	95.5	165,215	100.144	45th san Lukhnow Rs. of Reg. XLV. 1802
new standard	180.234	standard	91.7	165.215	100.144	By Reg. XI, 1819.
present		standard	91.7	165.00	100.000	By Reg. VII. 1833.
Generally		Wo. 8	88.3		100000000000000000000000000000000000000	Gårnáli Arkát.
				147.69	89.511	
German crown	0.0000	Wo. 20	83.3	360.84	218.691	Legal value by con- vention of 1763.
	430.45	Wo. 20.5	83.1	357.81	216.855	By Calcutta assays.
Ghatsan rupee	173.31	Br. 9	95.4	165.37	100.222	29th san Reg. III. 1806
Goa)	168.50	Wo. 12	86.4	145.58	88.230	Imported at Bombay as bullion.
chaura	174.43	Br. 11.6	96.6	168.25	101.971	Shah 'Alam? Benares mint; chauru, broad
thumka		Br. 70	94.5	164.74	99.833	Thumkd, stumpy or broad; all current
16th san	174.52	Br. 8.5	95.2	166.16	100.702	in Gházipúr dis-
trisūli	173.05	Br. 4.5	93.5	161.87	98.110	trict at par with
Gokul rupee	172 80	Br. 3	92.9	160.56	97.309	Benares rupees.
Gemansahi, 1819	171.25	standard	91.7	156.98	95.139	See Bundi.
1825	172.98	Br. 6	93.7	162.17	98.283	Equalized to the In- der standard.
Gopál sáhí	172.50	Br. 3	92.9	160.28	97.140	Madras.
Gurumatkal, 1	172.30	Wo. 24.5	81.5	140.35	86.063	Haidarábád Bágh chalani.
2	172.00	Wo. 18.5	84.0	144 41	87.520	
3		Wo. 39.5		144,41	And the State of t	" Shahr chalani.
Govind bakhshi, 1			75.2	127.85	77.487	" Hukm chalani.
80.7	170.80	Wo. 20	83.3	-142.33	86.262	Aurangábád Bágh chalani.
2		Wo. 25	81.2	139.3	84.451	Do. Shahr chalani.
3	170.50	Wo. 19	83.7	142.79	86.542	Do. Hukm chalani.
1832	169.38	Wo. 25	81.2	137.62	83.406	See Shamshiri, paid to troops at 120 per 100 Fd. or By. Rs.
Gwáliár	Same of the same of	Br. 6	94.1	161.31	97.763	The best of Sindia's coins.
Gurrahkotá Háli	1.7.7					Debased Bálásáhi. See Puna, Ujjáin, etc.
Hatras	171.60	Br. 9	95.4	163.73	99.27	and a Married Control
Holkar sáhí	168.60	Wo. 1	91.3	153.84	93.240	Coined by Holkar at Indor?
Hukari	172.60	Wo. 22.5	82.3	152.03	86.082	Coined at Marech.
Hurda	172.59	standard	91.7	158.20		
Haidarábád, 1	174.10	Wo, 17	84.6	147.03	95.881 89.106	Called Hall, in Malwa Bagh chalani, 'palace
2	173,50	Wo. 17	84.6	146.75	88,942	Shahr chalani, 'city
3	170,50	Wo. 18 5	84.0	143.15	86.757	Hukm chalani, 'or
1999	199.90	NF. 10	100		1000	dered currency."
1823	173.38	Wo. 18	84.2	145.93	88.440	Coined at Calcutta.
1832		Wo. 21	82.9	143.16	86.765	Bágh chalani.
	170,20	Wo. 35	77.0			
	170,20	W 0. 30	77.0	131.19	79.511	Shahr chalani

Average of one thousand six hundred and eighty, modest in 1833. The Persian coins are struck in many different towns, the principal mint being at Shiriz.

Name.	Weight	Assay.	Touch.	Pare contents.	Intrinsic value of 199.	Bemarks.
Imāmi	Grains, 175,24	Br. 10.5	00.0	Grains.	Pd. Ibs.	Ct. 1.1 m
Indor, 1819			96.0	168.31	102.003	Struck by Tipu Sul- tan, rare.
		Br. 7.5	94.8	163.04	98.813	Proper weight 174.5, current through-
1832	172.90	Br. 6	94.1	162.81	98.674	out Malwa at par with English rup. See Salimsahi,
Jaláon	168,80	Wo. 12	86.6	146.29	88.662	Rájá Pratáp Singh of Srinagar, es- tablished 1809,
Jhānsi	170,00	Wo. 15.5	85.2	144.85	87.790	abolished in 1826. Bundelkhand, abo- lished 1826.
Jhind	168,50	Wo. 19	83.8	141.12	85.526	Doab.
Jodhpur	174.00	Br. 9.5	95.6	166.39	100.841	Current in Malwa.
	168,30	Wo. 26	80.8	136.04	82.450	Similar to Srisahi.
Jamkandi	175.00	Br. 2	92.5	161,87	98.104	Exchange 2 pr. cent,
Jabalрūт	167.38	Wo. 6	89.2	149.25	90.455	under Ankūsi. In 1800, 11 mashas; 1803, 10 mashas;
9 500		8000	TUZ	20/0)		1813, 9 máshas, 6 rupces: at par
Jagádhari	165.30	Wo. 12.5	86.4	142.92	86,615	with Nagpur. Coined at Nasuk,
Jaripatka	171.60	Wo. 1	91.2	156.58	94.896	Khandesh.
Jaidur	173.50	Br. 6	94.1	163.38	99.017	Jaigarh ? Dihli dis-
	172.00	Br. 5.5	93.9	161.61	97.944	triet.
Jainagari	172,68	Wo. 3	90.4	156.10	94,608	Current in Ahmad-
Jaipûr Kachar	174.00	Br. 12	96,7	168.20	101.939	Present currency.
Karhana	172.80	Wo. 18	84.2	145.44	88.145	See Narayani.
Kerauli,	171.37	Br. 8.5	95.2	163.16	98.877	Constant to the second
Kittor-shapuri	174,00	Wo. 12.5	86.5	150.44	91.175	Original Shapuri
Kocháman						T (q.v.)
Korá, san 8	168.76	Wo. 5	89.6	151.10	01.000	Jodhpur, Bapusahi.
san 12	168.73	Wo. 10.5	87.3	151.18	91.623	1769, full wt. 170.5
san 20	168.36	Wo. 14	85.8	144.51	89,269	current in Aliaha-
Kosi ,		Wo. 18	81.2	140.60	87.581	bad: mostly melted
Kosa	171.64	Wo. 32	78.3	134.45	85.212 81.485	up and receined. Haidarábád (1832).
Kûmhir	171.00	Br. 8	95.0	162.45	98.454	Neur Bhartpur,
Kotá, old	172.65	Br. 13.5	97.3	167.97	101.803	Kota Raja has mints
1825	174.02	Br. 14	97.5	169.67	102,830	also at Jatrapatan and Gagraun.
Katch kauri	72.15	Wo. 73.5	61.0	43.56	26,400	Coined at Anjar, Katch.
Lálágorá	171,50	Wo. 6.5	89.0	152.15	92.210	Coined by Gen. Lally?
Larin	74.50	Br. 11.5	96.5	71.86	43,553	Of Persia and Arabia
Lassa	58,00	Wo. 30.5	79.2	45.91	27.827	Chah Chin coin or
Lukhnow, old	172,33	Br. 12	96.7	166.58	100.957	Tsang-pahu. Coined by the Na- wab Vazir
(Fd. sd.) 45th san.	173.00	Br. 9.2	95.5	165.21	100.127	Called Machhlisahi.
Srí sháhí	172,12	Br. 11	96.2	165.67	100.405	By King Asaf-ud-
1824	172.12	Br. 6	94.1	162.08	98.231	daulah. This year's coingers
1831	172.10	Br. 11	96.2	165.69	100,413	This year's coinage; inferior. (A.H.
Mádipár		Wo. 6	89.2	154.93	Mark Annual Control	1239-40.) Or Nousce; (Kelly).

Name.	Weight.	Assay.	Touch,	Pure contents,	Intrinsic value of 500,	Remarks.
	Grains.	dwts.	SESTINE	Grains.	Fd. Rs.	
Mādairi	174.28	Br. 5.5	94.0	163.75	99.240	Livering
Madras, old	176.40	Br. 65	94.4	166.48	100.895	Old Arkat rup.by law
Rájápúri,	175.00	Br. 7	94.6	165.52	100.315	Coined at Rajapur.
rupee of 1811	186.70	Wo. 5.5	89.4	166.48	100,895	Coined from Spanish dollars.
half pagoda	326.73	Wo. 5.5	89.4	291.34	176,570	- 1 Arkát rupce.
5-fanam	71 51	Wo. 4	90.	64.36	39.008	By Calcutta assay.
2-fanam	28.75	Wo. 5	89.6	25.76	15.609	
1-fanam	14.31	Wo. 4.5	89.8	12.85	7.785	22
double rupee	370.89	Wo. 4.5	89.8	333.03	201,834	
rupee	187.48	Wo. 4.5	89.8	168.34	102.024	,,
new standard,	180.00	Standard	91.7	165.00	100.000	1818; present cur-
Madhushāhi	174.05	Br. 12.5	96.9	168,61	102.188	New Holkar, Indor,
Maheswari	173.25	Br. 7.5	94.8	164.23	99.530	Coined at Mahes-
meantemati	110.20	III. 1.0		101.25	22.000	war by Holker; same as Ujjain
Muhammadshāhī	173.30	Br. 8.5	95.2	165,00	100.000	and Indor. Dihli Muhammad- shāhi ?
Māmūsāhi	177.75	Wo. 5.5	89.4	158.86	96.281	Baroda.
Malabar	172.84	Br. 3.5	93.1	160.96	97.549	Daroin.
200 0 424	169,50	Wo. 2.5	90.7	153.61	93.096	Current in Ahmad-
	100	1910	1903	01	2000	nagar and Gujarát.
Máshirábád	171.40	Wo. 6.5	89.0	152.47	92,409	(Old) from Madras.
new ,	168,20	Wo. 2.5	90.6	152.43	92.382	,
Marech hakári	172.60	Wo. 17.5	84,4	145.67	88,287	Coined at Marech. Bijapür.
Mullasahi	172.40	Br. 8	95.0	163.78	99,260	Sarat :
Malhásáhí	165.87	Wo. 6.5	89.0	147.55	89.425	Surat (Noton).
	165.88	Wo. 6	89.2	147.91	89.642	Current in Malwa.
Mudhôl	173.00	Wo. 82	57.6	99.47	60,284	Coined by Maliji
Murshidabad	179.666	Br. 15	98,0	175,923	106,620	Rão in 1790. Old sikka rupee (See
Mag rupce	152.80	Wo. 14.9	29.6	49,31	29.886	Average of 1400, as-
Makansáhi	176.62	Wo. 10,5	87.3	154.17	93,439	sayed in 1833.
Malhàrsáhi	172.30	Wo. 5	89.6	154.35	93,546	Coined at Bareda.
Management	172.50		00.0	104.00	00,040	Coined at Bagulkotů (Holkar),
Mulkapar	173,20	Wo. 46.5	72.3	125.21	75.884	Near Burhanpar.
Mangalsahi	178.50	Wo. 7	88.8	158.41	96.012	(Kelly.)
Mutysähi	173.30	Br. 8	95.0	164.73	99.833	Achmuty, collector,
Mathura	167.30	Wo, 13.5	86.0	143.95	87.241	Allahábád.
Mysore	174.28	Br. 7.5	94.8	165.20	100,125	Maheswar? Hol-
Någpår, old	168.65	Wo. 0.5	91,5	154.24	93,481	Nishandar, before 1817.
new	166.53	Wo. 13,5	86.0	143.28	86.838	Náldár, after 1817.
1824	166.53	Wo. 28.5	79.8	132.87	80.530	Debased until 1824.
present	166.20	Wo. 17.5	84.4	140.23	84.988	Reformed in 1824.
Náráyani	142.23	Wo. 22	86.7	117.34	71.116	The Kachar rupce;
	143.17	Wo. 30	79.2	113.34	68.690	
	137.15	Wo. 25,5	81.0	111.16	67.364	purrent in Rang- pur, etc. assayed
Nārāyanpat	170,00	Wo. 32	78.3	133.17	80.707	in 1832. Haidarábád rupec,
	172.50	Wo. 26	80.9	139.55	84 554	eoinedatNáráyanpat
Narrhy		Wo. 95	100000000000000000000000000000000000000		84,557	By Noton full weight
Narwar Nanant		***	87.7	149.10	90,366	Pådshåhpur.
Nepani	173.00	Wo, 38.5	75.7	130.96	79.383	A Marathicoin, 1803

Name.	Weight.	Assay.	Touch.	Pure contents.	Intrinsic value of 106,	Bemarks.
	Ginina.	Dwia.		Grains.	Pd. Be.	
Nep4l						These are coins of the
A.D. Sáka,					1	Gorkha dynasty of
1808 1731	85.00	Wo. 21	82.9	70.48	42.714	Nepal princes, Gir-
1810 1733	83.75	Wo, 32	78.3	65.60	39.760	van Yudh and the
1811 1734	84.67	Wo. 28	80.0	67.73	41.050	present Rája Rá-
1813 1736	84.40	Wo. 37	75.1	64.35	39.003	jendra Vikrama
1815 1738	84.58	Wo. 50		59.92	1.5.5.00.00.00	Sah. They are
Control of the Contro			70.9		36.316	
1817 1740	86.05	Wo. 43	73.7	62.72	38.014	the average of a
1818 1741	84.96	Wo. 43	78.7	62.65	37.973	number assayed in
1819 1742	83.77	Wo. 55.5	68.5	57.42	34.799	1832. The coins
1820 1743	84.66	Wo. 33	77.9	65.96	39.977	of the old or Ne-
1822 1745	85.57	Wo. 26	80.8	69.17	41.922	war dynasty are of
1823 1746	85.23	Wo. 24.5	81.5	69.43	42.078	the same standing.
1824 1747	85.47	Wo. 31	78.7	67.30	40.790	They are called
Average	84.76	Wo. 35.3	76.8	65.23	39.522	muhra, see p. 32.
Najibábád	10000	100000000000000000000000000000000000000		100000		Carrent in Robil-
sun, 20 to 29	173.00	Br. 12	96.7	167.23	101.353	khand and Murad-
30 to 40		Br. 6	1200 C 11	161.02		ábád. Received
	171.00		94.1		97.591	
41 to 43	169,30	Br. 1	92.1	155.90	94.483	at 106 per 100
N		n. (20	. 00037	200		Fd. Rs., see p. 32.
Nasúrábád	170.20	Br. 6	94.1	160.27	97.134	
Udipár	167-45	Wo. 32.5	78.1	130.82	79.285	Sindinsahi? Mewar.
Ujjain, 1832	174,64	Br. Sto.	93.3	162.99	98.783	Average of 100, Sec Maheswar, Struck
Oukari	175.00	Wo. 17	84.6	148.02	89.710	by Sindia. (Kelly's Cumbist).
Panáli, old	170,60	Wo. 68	63.4	108.16	65.552	Ikkeri. 1760. Struck by Rájá
		100	7507	100000	1000	Karwikar,
Pánipot	171.20	Br. 0.5	91.9	157.29	95.327	Dihli district.
Patna	177.50	Br. 11.5	96.5	161.21	97.705	Company's mint,
T. 1 . W		*** ***	Target Co.			1793.
Parkani, Nepani	173,00	Wo. 38.5	75.7	130.96	79.384	BySidhoji na'ik 1803
Sembho	172.75	Wo. 28.5	79.7	137.76	83.491	Current in S. Ma- rathi states.
Old ditto	174.00	Wo, 4.5	89.7	156.16	94.646	By Bhusla family, 200 years ago,
Mudhol	173.00	Wo. 8,2	57.5	99.47	60.284	ByMalaji Rao, 1790, rare.
newest	177.90	Wo. 7	88.7	157.88	95.684	Coined in the Sawant state.
Persian rupee	177.25	Br. 16	98.4	174.30	105.634	See Futh 'Ali.
apor	178,00	Be. 19.5	98.2	174.66	105.856	sáhí.
Pratápgarh	the first of the same	Wo. 9.5			100 100 100 100 100 100 100 100 100 100	
Dhulabari	170,40		87.6	149.27	90.466	Noton, See Salim-
Phulehari	174.81	Br. 9.5	95.6	167.68	101.565	Phulshahri?
Púlshahri	171.70	Br. 1.5	92.3	158.46	96.039	Ankusi rupee struck at Phülshahr.
Pondicherry	175,35	Br. 9.5	95.6	167.68	101.625	French Arkat.
	173.98	Br. 10	95.8	166.73	101.048	TOTAL SECTION
old	173.61	Br. 11	96.2	167.09	101.269	[under Purnya.
Raja	176.16	Br. 8	95.0	167.30	101.390	Struck at Maisur.
Pulti fanam	5.60	Br. 5.5	94.0	5.26	3.190	S-ADMINISTRATION OF STREET
Puna, old	176.00	Br. 12.5	96.9	170.50	103.333	Old currency. Sec Ankusi.
srí sikká	172.50	Br. 1.5	92.3	159.20	96.486	For present standard
háli	174.75	Br. 11.5	96.4	168.46	102.096	Coined for mercan- tile purposes.
		NAME OF TAXABLE PARTY.	1000000000	11166-1116	100000000	and barbones.
Porebunder kauri	74.50	Wo. 52	70.0	52,15	31.606	Coined at Porebun- der, Katch.

Name.	Weight.	Array.	Touch.	Pure contents.	Intrinsic value of 100,	Remarks.
	Grains.	dwta.		Grains.	Pd. Rs.	a .
Ráj-muhri	******	W	******	******	411111	See Assam rupee,
Rájskhi	169.73	Wo. 14	86.8	145.69	88.295	(Madess table)
Raichur 1	173.00	Wo. 4.5	89.8	155.34	94.144	(Madras table).
ned 2	175.00	Wo. 5.5	89.4	156.41	94.792	One of the distanciate
Rathgarh	168.35	Wo. 11	87.1	146.60	88.851	One of Sindia's mint
Rikābi	172.00	Wo. 10	87.5	150.50	91.212	
01	172.00	Wo. 12	86.6	149.07	90.343	Des DAM-414
Ságar1815	170.10	Wo. 8.5	88.1	149,90	90.849	Sce Bálásáhí; std. 80 rati silver 10 r. alloy; established
1819	170.48	Wo. 9.5	87.7	149.52	90,624	in 1782; received
1010	1,0.40	11 0. 0.0	0	220.02	00.021	at 120 per 100 Fd. Rs.
new, 1824	180.00	standard	91.7	165.00	100.000	The Fd. rupee.
Saharanpur	171.00	Br. 4.5	93.5	159,96	96.943	Mint abolished in 1806.
S4limskhi29	168.11	Wo. 34.5	77.3	129.93	78.748	Struck at Pratap- garh, Ajmir, and current through-
san, 45	168.55	Wo. 27	80.4	135.54	82.148	out Malwa.
oldest,	168.50	Wo. 6.5		150.00	90.909	Jurmuria, (Macdo- nald's rept., 1823).
1810	168,50	Wo. 13.5	86.0	145.00	87.878	Murmuria, ditto.
1820	168.50	Wo. 25.0	81.3	137.00	83.030	Melah, ditto.
Shamli	170.10	Wo. 1.5	91.1	154.86	93.855	Dihli district.
Sandoara	171.30	Br. 1	92.1	157.74	95.599	
Sarura	165.00	Wo. 22	82.5	136.12	82,500	Skrowi of Ajmir.
Sardhana	171.20	Br. 2	92.5	158.36	95.975	Bigam Samrú?
Saronj	168.35	Wo. 16.5	84.8	142.75	86.516	Málwa.
	170.91	Wo. 4	90.0	153.82	93.226	4
Shahpari	174.00	Wo. 10	87.4	151.98	92.118	Current in Belgaum,
Chamblet 15	100 00	W. 00 F	00.0	100.00		Ajmir, etc.
Shamshiri15	172.37	Wo. 26,5	80.6	138.89	84.130	Current in Aurunga- bad,
san 21	171.51	Wo. 31.5	78.5	134.80	81.693	Assayed in 1833, sec
san 28 Sindiaskhi	172.00	Wo. 28	80.0	137.60	83.395	Govind bakshi and Haidarábád,
Sobbende	166.00	Wa 24	91.7	196 20	00 000	See Udipur.
Sohägpår	166.90	Wo. 24	81.7	136.30	82.607	Established in 1810, current in Ner- badda.
Sonat, Dihli	178.77	Br. 15.5	98.1	175.41	106.313	The years 1 to 19
såbik	177.57	Br. 10.5	96.0	170.54	103.358	inclusivo.
san 1 to 19	179.12	Br. 16	8.3	176.13	106.747	Same as sikků rupce.
Srí sikká	*****	******			*****	See Puna.
Sriskhi	170.00	777		******		See Ajmir, 1815.
Srinagar	170.06	Wo. 6.5	89.0	151.28	91.686	In Nana Govind's
old	167.50	Wo. 16	85.0	142.37	86.239	state. Est. 1794, principal currency of Bundelkhand.
				l.	00.000000000000000000000000000000000000	See Jalaon.
Sunamalla	173.54	Br. 0.5	91.9	159.44	96.632	Sûrat.
Sürat	174.50	Br. 5.5	93.9	163.96	99.367	Under the Nawab.
old	176.60	Br. 16	98.4	173.66	105,246	Old Dihli standard.
1946-206-1907-00-10	176.25	Br. 1	92.1	162.30	98.363	Depreciated, see p.
1800	178.32	Br. 2	92.5	164.94	99,966	Chosen as Bombay
Támbasáhi	169.96	Wo. 8.5	88.1	149.72	90.742	
Thanna	170.80	Wo. 2	90.8	155.14	94.026	per?

Name.	Weight.	Assay.	Touch.	Pure contents	Intrinsic value of 200.	Bemarks.
Ti-māsha or (three māshas)	Grains. 34.30	Br. 3	92.9	Grains. 31.87	Pd. Es. 19,315	Coined in Nepal s current in Srina- gar.
	28.10	Wo. 51		15.62	9,467	Ditto, debased.
of Ladakh	40.00	Br. 12.5	96.9	38.75	23 484	Coined at Lassa.
Topisáhi	165.12	Wo. 22.5	82.3	135.88	82.354	
Toragal Nilkant	170.00	Wo, 71	62.0	105.40	63.873	Struck by Bala Sa- hib, 1788 B.
Toka	172.24	Wo. 27	80.4	138.51	83 944	Aurangábád, (1832).
Tukásábi	173,16	Br. 5.5	94,0	162,77	98,648	Current in Ahmad- nagar. (Noton).
Trinamali	176.50	Br. 8	95.0	167.67	101.618	Karnatic.
Venkatapati	172,72	Br. 11	96.2	166.25	100.756	Ditto.
Vaziri	168.62	Wo, 11.5	86.9	146,49	88.783	Sohagpur, in hilly tract E. of Jabal-
Vazirshahi	170,00	We, 13	86,3	146.62	88,864	pūr.
Wabgaum	172.55	Wo. 0.5	91.5	157.88	95,684	Current in the Dak- han, (Noton).
Yeswunti	174,95	Br. 7.5	94.8	165,84	100.500	Struck by Jeswant Rao Helkar, 1806
Zu'lfikr	174,10	Wo, 17.5	84.4	147.03	91.06	See Haidarabad.

(To convert the decimals of the last column into anis and pa'is, see the Table at page 12. For explanation of the present Table, see page 36.)

<sup>1</sup> This curious and handsome coin (for a specimen of which I am indebted to Major Stacy), might be mistaken for an antique from its bearing the following Sanskrit inscription in well-cut Nagari characters, on the obverse and reverse respectively.

# श्री इन्द्रमस्यस्थितो राजा चक्रवर्त्ती भूमण्डले। तत्प्रसादात् कृता मुद्रा लोकेस्मिन् वैविराजिते।

# श्री लक्सीकान्तपदांभोजश्रमराजितचेतसः। येशवन्तस्य विस्त्राता मुद्रैषा पृथिवीतले॥ शक्ते १७२८

- Sri. Indraprasthastkito rájú chakravartti bhimandale, Tutprasádát kritú mudrd loksamin saivirájite,
- Sri. Lakshmikántapadámbhejabhramarájítachetasah, Yesawantasya vikhyátá mudraishá prithivitale,

"By the permission of the Rájá of Indraprastha (the king of Dihli), the Emperor of the world, this coin has been struck by the renowned Yesawant (Jeswant Ráo Holkar), whose heart is as the black bee of the lotus foot of Lakshmikant,—to circulate throughout the earth. An. Sakse 1728" (= A.D. 1806).

Assay of Bullion ge	enerally, brought a	to the	Calcutta	Mint.
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Denomination.		Anny.	Intrinsic of 200 tolias in Fd. Rs.	Produce in sikká rupces.
South American bars marked	24 din.	Br. 20	109 091	102.273
	11 22	Br. 17.5	107.954	101,207
	11 17	Br. 14	106.364	99.716
1	11 10	Br. 8	103,636	97.159
Plata pina recovered from amal- gamation		Br. 17.5	107,954	101.207
phant-hoof)		Br. 16	107.273	100.569
Ditto, small ghord khuri (horse-hoof)		Br. 14.5	106.591	99.929
Calcutta refined cakes, called Madrusi		Br. 15.5	107.045	100.355
, Murshidábádi		Br. 15	106.818	100.142
Dacca		Br. 12	105,454	98.863

# Assay of Ava Silver Cakes.

Burmese denomination.	Meaning of Ava Assay Report.	Touch.	Calcutta Assay Report.	Touch.	Value of 100 tikals in Fd. Rs.
Ban (supposed to be pure) ]	pure silver		Br. 16.5	98,6	151.57
Kharoobat (shell circled)	5 pr. et. under do.	95	Br. 6.5	94.3	145.16
Dain, ta kynt det	10 pr. ct. above st.		Br. 2	92.5	142.28
ko moo det	9 pr. et. ,,	92.6	standard	91.7	141.00
,, sheet moo det	8 pr. ct. 21	91.8	Wo. 4	90.0	138.44
" kwon, neet moo det	7 pr. et. ,,	90,9	Wo. 3	90.4	139.08
" nga moo det	6 pr. ct. "	89.7	Wo. 5	87.6	137.79
Madain (alloyed dain)		***	Wo.42	74.1	114,08
Yowetnee (red flowered or star)		85.0	Wo. 4	90.0	138,44
	10 pr. et. alloy	77.3	Wo.14	85.8	132.03
" tshay nga kyat gé		73.9	Wo.38.5		116.32
" nheet tshay go	20 pr. et. ,,	70 8	Wo.34	77.5	119,21?
	30 pr. ct. "	65.4	Wo.72	61.6	94.85
	40 pr. ct. ,,	60.7	Wo.77	59.6	91.65
	50 pr. ct. ,,	56.7	Wo.88	55.0	84.60
	60 pr. ct. ,,	53,1	Wo.109	50.4	71.14
	70 pr. ct. "	50.0	Wo.107	51.3	72.42
	80 pr. ct,	47.2	Wo.112	49.3	69.22
	90 pr. et. ,,	44.7	Wo,116	43.5	66,65
	yowetnee, jalloy	42,9	Wo.131	37.0	57.04
Rangoon yowetnee	than Ava stand.	90.0	Wo. 4	90.0	138.44

(A deduction of 1 per cent. should be expected from the produce of Ava bullion, on account of the vitreous coat of litharge which adheres to the lumps).

This table is abstracted from the examination of thirty-five specimens of silver specially prepared in Ava, in presence of the Resident, for the comparison of the Burmeso with the English assay.

See page 34.

# TABLE of Copper Coins.

(Where not otherwise mentioned, the name tells the place of coinage and circulation. Since 100 grains is the weight of the present paisa, the column of weight also expresses the intrinsic value of 100 of each sort in Company's paisa.)

Name.	Weight in troy grains,	Usual rate per rupes.	Where current, Remarks.
Agra paisă	148	60	Current in the Agra district.
Akbari, old	300	30	Ditto, but scurce.
Allahábád	141	***	7000 C.1607000
Almorah		***	[208 grs.)
American cent	W 1994	***	One cent, 1810: (by law of 1790, should be
Azimgarh			Square, Hindi inscription.
Bálásáhí	and the second	270.00	Throughout Kalpi, Sagar, etc.
Barelli		40	ratosgavat zanjuj cagarj car
	101	64	See Patna.
Bahar Benares	98‡	64	By Regulation X. of 1809, Trisult paish; also Reg. VII. 1814. (See page 8 and 39.
Bhilára	307		ang, ran tour foce page o and our
Bhilsa	me.	- 7%	D. (11) 75.02
Bhophi	225	Chiefs	22 1100 21 3/20
Bishennath)	8	300	M. S. Leen Market M. W. W. B. Co.
Bombay, 1797		48	Marked '48 to one rupee, 4 V. E I.C. and arms
1804,	200	50	Coined, in England; device, arms, and scales, "Adl."
1832,	100	64	New coinage, with the same device.
Bhartpur	275	32	The second states
Bundí		3.2	-1000 - 1000 V
Calcutta, 1782	52 }	192?	First pa'i struck by contract at Pulta.
1792			Marked 'o. V. c. 1792,' and on the reverse a shield and crest.
1795	180	64	Quarter-ank, reduced on the 4th May, 1796,
1796 to 1809	135	64	to 12 anas weight, and afterwards in 1809,
1809 to 1817	101	64	to 9 anas, the weight of the Bahar paisa.
1817		64	Present standard weight by Reg. XXV. of 1817
half áná		32	
one ph'i		192	By Regulation III. of 1831, (See page 4.)
Ceylon			Coined in England, device an elephant, 'two stivers;' the one-, and the half-, stiver in proportion.
Chikna	240	30-32	
Chinawa	190	***	Chinania? In Lahor, near Kangra.
China			Brass coin with square holes, various sizes,
Chalan	240	32	Same as Chikna, current in the Doab.
Dihli	. 172	44-60	
Dutch	230	- me	Square lump, marked 'two strs.'
	1.00		Tranquebar, rude coin marked 'one str.'
English penny		4	Old penny-piece.
new new		411	New penny, legal weight 291.6 grains.
French sous			Brass, five centimes, legal weight 154 grains.
Farrukhábád			Prescribed by Reg. III. 1806 (not coined).
1816	100	64	Established by Regulation XXI. of 1816.
Gokula or }	110	70	Current from Mathura to Mainpuri.

Name.	Weight in troy grains.	Usnat rate per rupor.	Where correst, Remarks.
Gorakhpár	186	26-36	Benares district, former standard paisa.
CarAltin old		62	Marked Muhammad Akbar Shah.
Gwallar, old	man de la constitución de la con		Near Nagpûr.
Hådewå	0.00	34	
Hatras		5500	Current in Nagpür.
Indor		40 ?	In Malwa generally.
Jaláon		27.22	Bandalkhand, the Balasahi paisa.
Java, 1814	172	4**	Marked '1st. B.V. E.I.C.'
Jhansi	260	400	Current in Bandalkhand.
Jabalpur	260	200	Narbadda valley.
Jaipur		254	Agra and Juipur districts.
Kukureti	252	40-48	Near Panna in Bandalkhand : bears a device resembling a Hanuman—3120 per man.
Khetri	252	***	? Kukureli or Kukureti.
Karoli	281	36	Current at Dihli and Karoli.
Madras, 1803		***	XXkas piece, coined in England.
1808	120		Three falus, or one falam khurd (little fanam)
1832	100	64	Equalised with Bengal and Madras paisa.
Kot4		34	In Kota, Ajmir, etc.: a square coin.
Lukhnow, old	195		Machhlisahi, Current in Oudh and Kanou
new		46	Shirsahi, to Mainpuri.
1806		265	See Farrukhabad.
Madhusáhi	270	35-40	Chief currency of Allahábád and the Doáb formerly of Benares and Mirzapúr.
Maiwar	34	378	A very small coin.
Marwar	diam'r.		
Muzaffarábád			- 1 - MIN
Mansuri		58	In Agra, etc.
Mathura, old		463	an anglos and
new		68	Agra, Mathura, Bindraban, etc.
double		34	(Ages, maintag tring about ever
Nazir Shah			Son of Ghias-ud-din Shah: ancient squar paish of Sagar district.
Nepál	207	100000	Current in the Turái,
" paisá		80	Bahadursahi, coined and current in Nepal.
Najibabad	049	40	In Barelli and Robilkhand.
Nagar ?		***	Marked 'Nagar 5221,' device, a rade elephant
Narwar	107		some have 'Pan, Putan,' or Zarb-i patan.'
Narwar		47	In the Narbadda Territories.
Nawasahi		32?	Old Lukhnow, so called,
Patna, old		64	Of native fabrication,
1817 Penang			Coined at Patna and Calcutta.  One hundred to the dollar: and halves. Coince in England. Current in Penang, Singa
	HEERING IN		pore, and the Malay peninsula.
Patiāla (Rājāsāhi)	1703	***	Current in Patiala, Dihli, etc.
Råjgarh	274	36	warming and the service of the servi
Rajmahal	109	***	Coined at Rajmahal.
Rewasahi	220	46	In Rewa? device, a kind of Nagari figure one
Ságar ?		***	See Bůlásáhi.
Supar	173		The 'Nagar', paisa, so called by the natives
Saharanpur	255	35 ?	Also called Alamsahi.
Tari		424	† Tehri.
Tehri		43	In Bandalkhand, equal to Jhansi,
Tirlanga	150	2.7	Tollings or Southern India
Tranquebor	100	"""	Telinga, or Southern India.
		180	Dutch, marked 'I St.' (one stiver).
Udipar	65	160	About double the Maiwari,

The weights, unless otherwise stated, are taken from specimens collected chiefly at Benûres.

### SYMBOLS, ETC. ON MODERN INDIAN COINS.

Before giving the Catalogue of Symbols figured in plate xlv., it will be convenient to direct the reader's attention to plate xlvi., which gives such samples of the modern coins of India as will enable him to recognise their principal varieties at sight. Those of Nepal, Assam, Kachar and Lassa, are sufficiently distinct from the Nagari, Bengali, and Tibetan characters on them; the pagodas, also, of South India cannot be mistaken. The Nagari coin of Kota may be classified from its Lotus symbol, although it is otherwise difficult to decypher the inscription. But the great majority of coins treated of in the foregoing remarks and Tables are similar to figures 2, 8, 9, 10, 11, and 12, which exhibit portions only of a Persian inscription, generally of very imperfect execution. These can only be known by the signs or symbols of the various States inserted in some conspicuous part of the impression: thus, No. 11 is known to be of Indor, from the Solar effigy. The following particulars of the coins in plate xlv. will save the necessity of any further general remarks, in addition to those already made at page 40.

### L. THE BITH SAN SIREA RUPER.

Now [and up to 1835] coined at the Calcutta mint; bearing the Shah 'Alam distich, explained in page 2. All the Company's silver and gold money of Bengal, up to the present day, is of the same style, containing the whole inscription, of which parts only are visible on most of the native coins.

### 2. THE OLD SILIMSING RUPER.

Current in Málwá, and coined by the Rájá of Pratápgarh. The words visible on the

(intended for Shāh 'Alam hāmí ud-din, etc.) and the Hijra date, 1199, which, however, does not correspond with the year of reign on the Reverse:

This is the earliest year of the coinage of these rupees; those of the 45th san were in course of coinage in 1823. They were issued to the troops at the exchange of 122.8 per 130 Farrakhábád rupees.

#### 3. THE BAJBANGGARD REPER.

(Near Kotá Bundí) known by the Lotus symbol; coined by a petty zamíndár; much debased. In the Bhákhá dialect,

Obverse:

# थी रामचपरासी पवनपुत्र वलपायन

Sri ráma chaprási povamputra balapáyan 'All-powerful son of the air (Hanumán) servant of Ràma.'



ofter I Private

Bord G. Lan





Reverse:

### यसपर कापा में राजा जयसिंघ के २१ जयनगर

Is par chhidpd men réjd Jay Singh ke 21 Jayanagar. 'On this coin is imprinted the 21st (year) of Rájk Jay Singh at Jayanagar.'

The initial and final letters are imperfectly visible on the coin; the purport shews it to be struck at Jaynagar, a village near Bajranggarb

4. THE NEPÁL MUHR, OR HALF RUPER.

Obverse:

# श्रीश्रीश्री प्रताप सिंह साहदेव १६८६

SriSriSri Pratap Sinh Sah Deva (titles of the Raja) 1686.

Reverse:

### श्रीश्रीश्री गोरवनाव

SriSriSri Gorzkhadth, (the principal god worshipped by the hill people, whence their name of 'Gorkhas' is derived.)

Centre:

# बीबीबी गुह्येश्वरी

SriSriSri Guhyeswari, 'the omniscient goddens Devi.'

5. AN ASSAMESE BUPER.

Of an octagonal form. The inscription is in the Bengálí character, but in the Sanskrit language.

Obverse:

# 角 角 হর গৌরী পদাস্থু মধুকরস্য

SriSri Hara Gauri paddmbuja madhukarasya, 'The sipper of the honey of the foot of Sri Hara Gauri.'

Reverse:

# জ্ঞ ছাত্ত স্বৰ্গ দেৱ ক্লুদ্ৰ সিণ্ছস্য শাকে ১৬৩°

SriSri mat Swarga Deva Rudra Singhasya. Sake 1680, 'The blessed and celestial Rudra Singh.' The Saka date corresponds to A.D. 1708.

### 6. A KACHAR RUPER,

In this the Bengálí letters are connected together by parallel lines.

Obverse: The inscription is not intelligible.

Reverse:

# 角 গিরীশ চক্র নারায়ণ।

Sri Giris Chandra Ndráyana (the Raja's name).

7. CHINESE-TIBET SILVER MONEY.

Coined at Lassa (vide page 33). On the obverse, in the Tibetan character, gtsang pahu, 'pure money,' chah hchhin (name of the Chinese Emperor). On the four corners of the margin of another coin similar to the one depicted, are the four letters nyi hu rtsa lna (25) meaning the twenty-fifth year of the cycle of sixty years (= A.D. 1831): the date on the coin in the plate is not decypherable. The Chinese

<sup>1</sup> The plate states it to be a Pratipgarh rupee, as it was labelled in the Assay-office cabinet; but on reference to Major Stacy, at Nasirabad, it turns out to be as above. The inscription was read by a pandit at that place, who makes the last words, 'Jayasingh ke rdj Jayapur men;' but I consider the above more consistent with the specimen in my possession.

inscription on the reverse consists of four words, ka-ken pos-chung, 'the Emperor Ka-hen's ' precious money.'

#### 8. THE ARKAT ROPER.

The full inscription of this (the Madras) coin is given in page 3. It is known by the part of ارکات visible, and by the groups of four dots and the lotus or lily.

### 9. THE SÁGAR RUPER.

In this the Shah 'Alam distich can barely be traced. The trident, star, and flag of Siva are its distinguishing marks.

### 10. THE NÁGPÚR RUPER.

This coin bears the inscription of Muhammad Sháh. Sikka mubárik bád(-sháh Ghází Muhammad Sháh) only recognizable by the two final letters of the Emperor's name. It is known to be of Nágpúr by the ## bh (or inverted?) which may stand for Bhunsla, the name of the reigning Rájás of Nágpúr; the 't' (sarb-i ...t) may be the final letter of Hingan Ghát, the place of coinage.2

### 11. THE INDOS SUPER.

Parts of the words Shah' Alam badshah are here visible, and the usual year of the reign: the solar disc distinguishes the coin.

### 12. THE SHIRBÁRI, OR NEW LUKHNOW RUPER.

Besides the absurd armorial bearings, constructed of two tigers, two fish and a dagger, surmounted by a royal umbrella; this rupee bears the following inscription:

Obverse:

سكه زد بر سيم و زر شاه زمن غازي الدين حيدر عالي از فضل رب ذوالمنن سنه ١٢٣٨

'The king of the world, Ghixi-ud-din, Haidar 'Ali, by the grace of the Lord of Glory, has struck coin in silver and gold, A.M. 1238.'

Reverse:

ضرب سنة ه جلوس ميمنت مانوس دار السلطنة صوبه اوده 'In the 6th year of his illustrious reign, at the capital of the subah of Oudh.'

#### 13. AN ANCIENT GOLD HON,

with part of an inscription in the Sanskrit character on one side, and a single image on the other.

### 14. A MODERN DOUBLE PAGODA.

Struck at Madras, showing the character of the former English currency of that presidency.

### 15. THE COMMON BHARTPOR PAIRS.

Shewing that the copper coins may be also recognised by their ap-

<sup>1</sup> The late Emperor of China, written 'Kea-king' in the Anglo-Chinese Kalendar, reigned from 1781 to 1821.

I have since been informed that the symbol on the Nagpur rupes is intended for \$> the Marathi numeral equivalent to 4½.





propriate emblems. The inscription will be seen to be part of the Muhammad Shah legend.

16. MADRAS COPPER COIN.

Struck in England for circulation at Madras (see page 4). The same coat of arms will be found on the Bombay and Penang copper currency.

# CATALOGUE OF SYMBOLS ON MODERN INDIAN COINS. (PLATE XLVI.)

[Taken from specimens in the Assay Office or in the author's possession. In some cases (marked ?), it is probable that the specimens have been mismamed from their being found current in other districts with different names.]

VARIETIES OF THE PHÚL, (*FLOWER')	31 Madras, Shahpur, 'Alinagar.
STAR, AND DOT.	32 New Madras.
1 Company's rupee. Gokula rupee?	33 Garnáli rupce (Arkát).
2 Saronj rupec.	34 Chandur.
3 Islāmābād muhr of Aurangzib.	35 Gokula, or Gandasāhi paisā.
4 Vazirsáhi rupce, san 9. Bálásáhli?	36 Kalpi.
5 Surat & old Bombay (with a crown).	37 Oujein new. Chanda: common.
6 Korah (in Allahabad) with 21.	38 Kālpi.
7 Srinagar, with 45. Sagar with 45.	
8 Jhánsi, Also 10,	40 Bhartpur paisu (see plate xlv.).
9 Saharanpur: common.	41 Old paish found in Sugar.
10 Jhansi: with 5 leaves, Gwaliar,	VARIETIES OF THE VRISCE, BALA, OR
11 Sugar with 45, (cale plate xlv.)	'Talbent.'
12 Murshidábád,	42 Mathurh. Jalhon, Sagar.
13 Barelli, with 30.	43 Srinagur, with 7.
14 Saharanpur, with 9,141 Old Assum.	44 Old Sügar, Külpi,
15 Old Súrat muhr,	45 , Jáláon, etc.
16 Jalwan or Jalaon?	46 Kûlpi paisă, with 43, etc.
17 Siwùi gold muhr, Aurangzib.	47 Nepal muhr. (see plate xlv.)
Nagpar, with 94. Gokula, with 78.	48 Bhopal, Bhilsa, Rathgurh,
18 Common: Ujjain, with 93 or 37.	49 Telinga paisá?
Udipûr.	50 Ganjam.
19 Arkat. Chilki Arkat, etc.	51 Old Dihli and Farrakhābfid: common.
20 Private mark of Benüres mint (cen-	Någpår of Jeswant Råo,
tre dot enlarged).	52 Nasir Shāhā, old Narbaddā paisā.
21 Kora or Cornh, with 6.	53 Sultan Muhammad,
22 Ujjain.	PHÚL, PADAN PHÚL, 'FLOWER, KNOZ.'
23 Old Farrukhábád rupee and muhr.	54 Kotá rupee—and with 57.
24 Bharatpür. (see plate xiv.)	55 Koth rupee,
25 Chinawa rupee (Arkat).	56 Bundi, Kotů.
26 Bhikanir, with 62, 63.	57 New Koth, with 56,
27 Maisur, common; Chandausi.	58 Hardá (Narbaddá),
VARIETIES OF THE PADAM, "LOTUS" OR	59 Kotá variety, Bajranggarh.
"TREFOIL,"	60 Benares, old, small with 80.
28 Inder, old, with 29.	61 Bhikanir, with 26, 62, 63,
29 Ditto,	62 , reverse.

63

30 Barelli, with 13,

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VARIETIES OF THE KATÁR, OR 'DAGGER.
BARCHHÁ, 'SPEAR' OR 'SCEPTER,' GUDÁ,
                                       96 Akbar II, of Dihli-small.
              OR "MACE."
64 Jodhpúr. Páli.
                                       97 Narwar.
                                       98 Bhartpur. (see plate xlv.)
65 Kochaman, with 92. Bopúsúhí.
                                       99 Siwai gold muhr of Muhammad Shah,
66 Jodhpur. Nager.
67 Barelli ? Urcha? Páli.
                                             with 13: small.
                                       100 The Aukse of Puna, -Chitor.
                                               NUMERALS AND LETTERS.
  JHÁR, THỐHAR; 'BRANCH OR SPRIG.'
68 Bhilara.
                                       101 (10) Háli sikká of Puna, Nágpúr.
                                       102 (9 or 1?) Rewa paisa. Bhilsa?
69 Jaipúr-Siwái gold muhr.
                                       103 (76) Jabalpür.
70 Ajmir.
71 Chitor, Krishnagarh.
                                       104 (55) Sagar.
                                       105 (75) Indor old rupes,
72 Sálimsáhí ? (Jaipár).
73 Jaipur rupce and muhr.
                                       106 a (41) Old Nagpur :
                                           b (9) New do.1
74 Bandarsela?
                                       107 Tehri, Bandalkhand, illegible.
75 Mathura, Jaipur,
76 Chinsur, with 100. Udipur, Chitor
                                       108 (श्री कार्र) Srisahi rupee of Ajmir.
    old?
                                       109 (7 A) Haidari of Maisur.
                                       110 (ar gd, cow') Chitor; from the pro-
77 Barhánpúr ?
    VARIETIES OF THE ROHU, OR 'FISH.'
                                              verb regarding the slaughter by
                                             Akbar: "gáo mare ke páp."
78 Gokula paisă.
79 Oudh, Lukhnow old rupes.
                                        111 (HT ad) Gold muhr, unknown?
                                       112 (UT wd) Debased Dihli gold muhr,
80 Ditto, Barelli. Old Benares,
81 Machlisahi of Lukhnew.
                                              san 29.
82 Benáres old.
                                                    MISCELLANEOUS.
          SCRAS, 'THE SUN,"
                                        113 (shell) Bhatgaon in Nepal.
83 New Inder rupes and muhr.
                                        114 (Panja, 'fists') Almorah.
84 Indor.-Ujjain.
                                        115 Sălimsăhi, date 1199. (see plate xlv.)
      ,, copper coin.
                                       116
                                                     Varieties.
                                                **
 86 Bel patta, Maheswar, with 87.
                                       117
87 Lingam, Maheswari rupee.
                                       118 Mewart paish.
88 Paták, 'flag or standard of Siva : '
                                       119 Kukureti, near Pannáh in Bandal-
    Sågar rupee (pl. xlv.). Någpår,
                                              khand (the god Hanuman?)
                                        120 (elephant.) Nagar, Patan, Sopúr?
 VARIETIES OF THE 'SWORD: ' SHAMSHIRE,
                                              Struck by Tipů?
 89 Chanda, Gwaliar,-common.
                                        121 (Chhata, 'the royal umbrella') on
 90 Haidarábád, of Kásim 'Ali,
                                              some of Muhammad Shah and Shah
      . Govind-bakhshi.
                                               'Alam's Dihli coins.
 92 Common shamshiri.
                                        122 Variety of
                                        123 Etáwa muhr.
 93 Kochaman, with 64.
 94 Nagpur, with 17. Katmandu (see
                                        124 Jhánsá.
      p. 31), Balkh,
                                        125 The swastika emblem of the 7th Jina,
 95 (Pistel) Agra paisă.
                                              found on some coins.
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¹ The distinguishing symbol of the old Någpür rupee, struck at the Chanda and Hingan Ghât mints was as above, a Marâthi 4¼. When Bachâ Rão and Dr. Gordon had charge of the mint, their mark was a flag (88). The new Någpüri since 1825 has the figure 9 above this flag. Other minor varieties are marked as follows:—the Yeswant Rão Någpüri, by +; the Man-Bhat-Sâhî, by =; the Ugno-Sâhî, by a Marâthi 10 (fig. 101); the Râmji Tantia has a half moon →; the Narsingh Rão the same with a dot in the centre w; the Siva Rão, the same with a dot on one side → There are many more, but they are not considered chales or 'current.'

# NOTE ON THE HISTORY OF THE GOLD AND SILVER CURRENCIES OF INDIA.

[As the general subject of metallic currencies is just now attracting the serious attention of the European public, it may be useful that I should recapitulate briefly the facts to be gathered from the detached notices of the coins of the various kingdoms and diverse epochs illustrated in the preceding pages, which throw light upon the little known history of Indian mintages; and further, that I should complete the review by exhibiting the action of our own civilization on the circulating media of these later days, especially in reference to the important question of the institution and organization of the gold coinage as a legal tender, and its eventual supersession as such in 1836.

I have elsewhere expressed an opinion that the people of Hindústán, in very early times, had independently achieved considerable progress in the art of coining; even before Greek civilization reached them through the influence of Alexander's expedition, and the subsequent settlement in India proper of the Bactrian-Hellenes. we are able to trace by the produce itself, each phase of mint development and each successive effort of invention tending to the production of a perfect coin. The earliest movement is seen in the fabrication of irregularly outlined flat pieces of silver or copper, of fixed weights, whose currency is marked by the symbols of consecutive dynasties, punched at hazard on their surfaces. Next, we remark a more careful rounding off of the metal, and the application of a single die over the whole of one surface, the other being left blank. As we proceed, we meet with complete coins; but these are cast in moulds, and may possibly indicate separate and independent progress. Successive modifications and improvements are observable in either class, which it is not necessary to follow more at large in this place: and, finally, we arrive at excellent specimens of an issue of fairly coined money, seemingly local in Northern Hindústán,1 which there is good reason to assign to a period prior to the advent of the Greeks. Coins of these epochs have been found in silver, copper, bronze, and lead; the nondiscovery of any examples in gold does not necessarily lead to the inference that the metal was not used for coining purposes; but merely amounts to the fact that, if used, it was of rare occurrence.

Coins of the Behat type. Article X.

The Bactrian-Greeks, as far as their Indian provinces tell the tale, would appear to have restricted themselves to a currency of the two metals, silver and copper. Their successors, the Indo-Scythians again, discontinued the issue of a silver currency, and supplied its place by a gold coinage; increasing, simultaneously, the weight of the copper There is some uncertainty as to the dates of succeeding dynasties; but we find the Guptas,-who imitated the devices of the Indo-Scythian money,-in possession of a copious gold currency in their eastern provinces on the Ganges, aided by a limited silver, but sufficient copper medium of exchange; while their dominions towards the Western coast were supplied almost exclusively with a silver coinage based upon the mintages of the Sah kings of Saurashtra (Gujarat); who in their own case had previously copied the style of the Greek hemi-drachmas of Apollodotus and other sovereigns. Here we must pass over centuries, and present our next tableau in the time of the Brahman kings of Kabul and the Panjab (about the 10th century A.D.). In this instance also the currency is confined to silver and copper. Mahmúd, and his successors of the Ghazní dynasty, employed gold in addition to the lower metals. At the period immediately preceding the Muhammadan occupation of India (A.H. 587, A.D. 1191) the northern provinces of Hindústán were furnished with a currency composed of a combination of silver and copper mixed in uncertain proportions: while the Rahtor monarchs of Kanauj still continued to issue gold. The former coins, which were entitled after the capital, Dilliwals (دليوال),1 were adopted by the Pathan Sultans of India, and a middle currency of such incorporated metals remained in use up to the time of Baber (A.H. 930, A.D. 1523-24). Simultaneously with the retention of this type of the local money, the Muhammadans introduced modified forms of dirhams and dinárs, of equal weights (174 At what relative proportion these stood to each other we are left to conjecture, as history is silent on the subject, and the coins themselves afford us no means of instituting a comparison. The lower currency was completed by a copper coinage, which in some cases extended to so minute a division as 17.4 grains.

The celebrated Muhammad bin Tughlak (A.H. 725, A.D. 1324-5) introduced an infinite variety of new coins of all descriptions, and evidently remodelled the rates, together with the weights of his currency. The gold coinage was raised from 174 to 200 grains, and the silver reduced from the former amount to 140 grains. But his grand effort at finance seems to have been reserved for the production

Inscription of A.H. 587 (A.D. 1191) on the Mosque of the Kuth at Dihli; the original reads preferably Dillial, but the Taj ul Massir determines the word as school.

of a scheme of a representative currency (founded on the Chinese paper credit system) in which copper and brass tokens were stamped with an authoritative impress of value, whether as the equivalent of gold or silver; and in addition, parallel representatives of the ordinary subdivisions of each, were issued to complete the currency. This attempt, after producing countless troubles, and resulting in utter failure-even under the guidance of an absolute and unscrupulous tyrant-was abandoned definitively before the expiration of three years from the first promulgation of the ordinance. I need not notice the minor incidents of Muhammad bin Tughlak's mint administration, further than to note a seeming reversion to the previous system of weights in the latter part of his reign. Nor need I more fully advert to the state of the currency under his successors, beyond remarking that Báber seems to have designed to substitute his Central Asian scheme of coinage in place of the then existing local distribution of the currency. However, when Shir Shah had driven Humayun out of India (A.H. 949, A.D. 1541) he entered upon a general reform of the coinage, which had the effect of introducing the now universal rupce. and abolishing the unsatisfactory compound of mixed metals; in addition to simplifying the lower coinage, by its reduction to a fixed and determined standard of pure copper,1 representing the dam, which we must suppose had previously been minted in billon.2

At length we reach an epoch when we have no longer to depend upon the coins as our only data, but are able to cite written and contemporary authority for the illustration of our subject. Akbar's minister, Abû'lfazl, has preserved to us a full and complete record of his master's mint arrangements; from this we discover that the authoritative standard of the day was copper, based upon the dâm, which is defined as "a copper coin, in weight 5 tanks, or 1 tolá, 8 máshas, and 7 ratis, in value the 40th part of a rupee." The text of the 'Ayin-i Akberi' goes on to declare the weight and value of the gold and silver coins, the equivalents of each being expressed in dâms, and their relative exchangeable value inter se being for the moment altogether ignored. In this same measure of value all the revenues of the empire are estimated, indeed, it would appear from an incidental notice in connexion with the subject of relative values, that the definition of the worth of

<sup>&</sup>lt;sup>1</sup> I have estimated this coin at 323.5 grains; pieces now in existence weigh as high as 322 grs. (See 'Numismatic Chronicle,' xv, 1852.)

<sup>2 &</sup>quot;The dâm," says Abû'lfazl, "was formerly called pysah and also Bahloli,"—Bahlol Lodi's mixed coinage contributes isolated specimens that might well represent the requisite value, as tested by present assays; but there is an absence of uniformity in the general results that forbids our recognising any specific class of higher or lower equivalents.

<sup>3</sup> Gladwin's 'Ayin-i Akberi,' i. p. 37.

gold by any silver estimate, was—like the rupee itself—a novelty.\(^1\)
The materials afforded by the text of the 'Ay\(^1\) Akberi,' whether tested by the valuation in d\(^1\) ams, or by the equivalents subsequently given of the rupee correspondents of the several descriptions of muhrs, equally establish the result that gold stood to silver as 1 to 9.4. The rupees, it will be seen, were themselves of various standards, ranging from the 39 d\(^1\) d\(^1\) ams of the old round rupee, to the 40 d\(^1\) ams of the square jal\(^1\) and, in fact, it is acknowledged in one place that even the estimated rates were uncertain in their application, and that the silver coin was left to find its own level in the market.\(^1\)

I now arrive at the period when British influence is felt upon the the currencies of India, and as this is a subject connected with which much misunderstanding and some misrepresentation have taken place, I secure myself from any possible prejudice or favor by permitting the Government to state its own case, in extracts from the legislative enactments promulgated from time to time. The history is unsatisfactory in its earlier portions, and incomplete towards its end, where, it is clear, much remains intentionally untold.

REGULATION XXXV. of 1793.—PREAMBLE.—"A Regulation for re-enacting, with amendments, the Rules passed on the 20th June, 24th October, and 31st November, 1792, and subsequent dates, for the reform of the Gold and Silver Coin in Bengal, Behar, and Orissa; and for prohibiting the currency of any Gold or Silver Coin in those provinces, but the 19th Sun Sicca Rupees and the 19th Sun Gold Mohurs."

"Sec. 1. . . The sicca rupee of the 19th sun is the established silver coin of the country, and the rupee in which the public revenues are payable. It was with a view to render it the general measure of value, that Government determined in the year 1773, that all rupees coined in future should bear the impression of the 19th sun or year of the reign of Shah Alum. . . . "The rules by which the gold coin has been regulated have been productive of evils, similar to those which have prevailed with regard to the silver coin. Under the native administrations, and until the year 1766, the gold mobur was not considered as a legal tender of payment in any public or private transaction, nor was the number of rupees for which it was to pass

<sup>&</sup>lt;sup>1</sup> When Azad-al-daulah "was sent to Kandes, Rājā Tudermull made the price of gold moburs to be estimated in rupees:" i. p. 39. The original Persian text is somewhat obscure in this passage; and the MS, copies vary in the wording of the sentence; but Gladwin seems to have fathomed the real meaning.

<sup>&</sup>lt;sup>2</sup> "Although the market price is sometimes more or less than 40 d5ms, yet this value is always set upon it in comparative calculations."—Ayin-i Akberi, i. 35. The original passage is quoted in the body of note <sup>3</sup> p. 5, sepré.

current ever fixed by the Government. It was struck for the convenience of individuals, and the value of it, in the markets, fluctuated like other commodities: silver being the metal which was the general measure of value throughout the country. In the year 1766, the value of the gold coin, with respect to the silver, was first fixed, and the former coin declared a legal tender of payment. A gold mohur was struck, and ordered to pass for fourteen sicca rupees. But as this coin (calculating according to the relative value of the two metals) was much below the worth of the silver, in the number of rupees for which it was ordered to pass, it was found impossible to render it current, and it was accordingly called in; and a new gold mohur, being that now current, was issued in 1769, which was directed to pass as a legal tender of payment for sixteen sicca rupees. The intrinsic worth of this coin was estimated to be equal to the nominal value of it, or as nearly so as was deemed necessary to render it current at the prescribed rate." [The Regulation then goes on to enumerate the difficulties attendant upon giving free currency to these coins," and proceeds to say : ] "The means which appear best calculated

<sup>1</sup> Sir James Steuart, in his work, entitled 'The Principles of Money applied to the present state of the Coin of Bengal' (a.p. 1772), gives us some interesting details as to the aim and object of the original establishment of the gold currency of Bengal, and the want of success that attended the measures of Government, confessed to in the above Regulation. He says: "It has been observed, that this coin, called gold mohurs, had been formerly coined at Dehli, of the same weight and fineness with the sicca rupee of Bengal and other countries of Hindostan; but that they passed conventionally, having no legal denomination. In 1766, . . it was proposed, as an expedient for augmenting the currency of specie to make a coinage of gold, . . and the directors of this operation, pitching upon fifteen Arcot rupees as the value of one gold mobur, instead of estimating the value of these fifteen Arcot rupees by the fine metal contained in them, estimated them by their current value, which was above the proportion of their intrinsic worth. Not satisfied with this first deviation from prin-ciples, they added to the mohur (already over-rated in its proportion to the fifteen silver Arcot rupees) no less than 8 per cent. extra-denomination, entirely arbitrary. So when this gold currency came abroad, it proved to be no less than 17 per cent. worse in payments than silver rupees of Bengal, Madras, Bombay, and Surut,"

pp. 26, 27.

"The people of that country (Bengal) had been so long accustomed to silver coin, that they never would, except when forced to it, receive the moburs in payment. So the Company was obliged to make a new regulation in 1769, little better than the former. At last the gold currency fell all together to many per cent. below its intrinsic value, according to the saying, Dum vitant stalti, vitia in contraria current."

Sir J. Steuart, at p. 30 et seq., gives us the weight and standard of these coins :-The 1766 mohur was 20 carats fine, or 20-24ths: full weight, 179-66 grs., proportion of fine gold, 149 72 grains: issued as the equivalent of 14 rupees.

The rupee being 179-66 grs. in full weight, and containing 175-92 grs. of fine

The mohur of 1769, full weight 190-773 grs., contained 190-086 grs. of fine gold: the value being fixed at 16 rupees: the silver currency remaining as before.

Our author continues: "Now if we go upon the supposition we have hitherto adopted, viz., that the proportion of the metals in India was supposed to be at

14 to 1; then in this coinage of 1769, the gold was over-rated nearly 52 per cent."

to render the gold mohur generally current, are to declare it receivable at all the public treasuries, and in all public payments throughout the provinces, at the rate of sixteen sieca rupees."

Sec. 2. defines weight and standards, or-

"Gold mohurs, 190.894 troy grs.: Assay, compared with English standard gold, better, 1 car. 31 grs.

"Sicca rupees, 1792 grs.: Assay, compared with English standard silver, better, 13 dwts."

SEC. 3. specifies that these gold mohurs "are to be considered a legal tender of payment in all public and private transactions . . at the rate of sixteen sicca rupees;" and further defines penalties for their refusal by the native Treasurers; and to complete the authoritative currency, it is even declared in Sec. 20, that "no person shall recover in any court of judicature . . any sum of money, under a bond or other writing, or any agreement, written or verbal, entered into after the above-mentioned date, by which any sum of money shall be stipulated to be paid in any species of rupees, excepting sicca rupees or gold mohurs of the 19th sun, or the halves and quarters of each."

Res. VI. of 1794 postpones to 10th April, 1794, the operations of Secs. 18, 19, 20, and 23 "as regards the silver coin."

REG. LIX of 1795 further postpones the operation of these Rules to 20th April, 1796.

Res. LXI. of 1795 refers merely to the amount of loss which is to be held to reduce these rupees below the standard.

Ress. I. of 1797, V. of 1801, and XXXVIII. of 1803 relate to exemption from duties of gold and silver coins.

Reg. XLV. of 1803 gives effect to the arrangement for the mintage of Lucknow or Furrukkábád rupees, of the "same size and form as the 19th sun sicca rupees"; weight and standard to be hereafter determined.

Sec. 25 is, in effect, to the same tenor as Sec. 20 of Reg. XXXV. of 1793, except that gold mohurs are not alluded to; but Sec. 42 explains, that "whereas the gold coin, denominated gold mohurs, has never obtained an extensive circulation in the ceded provinces, in consequence of silver having been the general measure of value in those provinces, from time immemorial; and whereas, during the government of the Nawab Vizir, the value of the gold mohurs in circulation, with relation to the silver coin, was never fixed; and, whereas the coinage of gold mohurs has been long discontinued by the Native Government of the said provinces, as well as the adjacent foreign states; it is not, therefore, judged necessary, at present, to establish a gold coinage in the provinces in question. The gold

mohurs shall be permitted to be circulated in the ceded provinces as heretofore, according to the value which individuals receiving and paying the same shall determine; but, gold mohurs shall not be considered to be a legal tender of payment in any public or private transaction, nor shall they bear any fixed rate of value, compared with reference to the silver coin . . established by this Regulation."

SEC. 43 et seq. provides for the copper coinage.

REG. LIV. of 1803 postpones the operation of Sec. 20, Reg. XXXV. of 1793, to 16th August for the province of Chittagong.

Res. XII. of 1805, Sec. 13, declares that after a fixed date, "no money will be received in payment of the public revenue (in Cuttack), excepting Calcutta sicca rupees or gold mohurs of the 19th sun."

SEC. 15 extends the penal provisions of Sec. 20, Reg. XXXV. of 1793 to the same province.

Reg. III. of 1806 specifies the weight and standard of the Lucknow sicca rupee, introduced by Reg. XLV. of 1803, viz.: 173 grs. troy. Touch, or parts of fine silver, in 100, 95.5; alloy, 4.5.

REG. IV. of 1807 refers to rupees alone, and determines the rates at which rupees of sorts shall be received and issued in the ceded provinces. Sec. 8 makes the same applicable to Cuttack.

Rec. XIII. of 1807 rescinds the penalties named in Secs. 20 and 21, Reg. XXXV. of 1793, and in parallel sections applicable to local divisions of the country; it being admitted that in many cases, "the penalty of non-recovery by judicial process is not only a hardship to the individual, but is repugnant to the ends of justice."

REG. II. of 1812 defines duties on the coinage of bullion.

SECS. 10 and 11 specify the weight and value of the Benares rupee as 175 grs. troy. Touch, or pure silver, 168.875; alloy. 6.125.

Reg. XVII. of 1817, Secs. 9, 10, and 11 prescribe punishments for counterfeiting, debasing, etc.

Reg. XIV. of 1818.—The presmble states, "The high standards established for the gold mohur and sioca rupee, having been found productive of many inconveniences, both to individuals and the public,

. . [but] as a reduction in the value of the sicca rupes, from its being in a great measure the money of account, both in private and public transactions, would necessarily change the terms of all existing contracts, and might be productive of embarrassment and trouble, it has been determined to leave the rupee unaltered in this respect; and the new Calcutta sicca rupee will consequently contain the same quantity of fine silver as that heretofore struck, and, being of the same intrinsic value, will circulate on the same terms. The mint proportions of silver and gold, being, it is believed, inaccurately estimated at present, and it being also desirable that an uniformity in this respect should be introduced at the three Presidencies of Calcutta, Madras, and Bombay, it has been thought advisable to make a slight deduction in the intrinsic value of the gold mohur to be coined at this Presidency, in order to raise the value of fine gold to fine silver, from the present rates of 1 to 14.861 to that of 1 to 15. The gold mohur will still continue to pass current at the rate of sixteen rupecs. For the purposes and objects above enumerated" it is enacted, etc.

Sec. 1, par. 2nd.—"The weight and standard of the Calcutta sicca rupee and gold mohur . . . shall be as follows ":-

Gold mohur ... weight 204-710 grs. ... fine gold 187-651 ... alloy 17-059 Sicca rupee ... weight 191-916 grs. ... fine silver 175-923 ... alloy 15-993

Res. V. of 1819 refers to mint and bullion details.

Res. XI. of 1819 discontinues the coinage of the Benares rupee, and limits "the legal currencies in the territories subordinate" to Bengal "to two, namely the Calcutta and Furruckabad rupee." The latter is specified at—Weight, 180-234 grs.,; pure silver, 165-215; alloy, 15-019 = 11-12ths pure and 1-12th alloy.

Sec. 10 secures an equitable arrangement for bonds, etc., "not expressed in Furruckabad rupees."

Res. V. of 1821 regulates the rates at which Benares and Furruckabad rupees shall be received in payment of revenue.

¹ To exemplify how Governments keep their own laws, I extract from 'Allen's Indian Mail' of 1854, a statement of manifest authenticity regarding certain mint operations sanctioned during the continued currency of this Regulation:—"The market of Calcutta has invariably exhibited a great difference of price between the pure gold mohurs of old standard and those of the new one-twelfth alloy standard. For seven years—that is, from 1818 to 1825—the Calcutta mint coined nothing but new-standard gold mohurs; but in 1825-26, the Government having had a large receipt of gold from the Burmese, and having obtained also a considerable remittance of gold from Madras, consequent upon the substitution of rupees for pagodas in the currency of that presidency, this Government gold was, for the sake of the profit, esseed into gold mohurs of the old standard,—Regulation XIV. of 1818 prescribing one-twelfth alloy for the Calcutta gold, notwithstanding. There were above four lass of old gold pieces struck in the Mint, and sold at the general Treasury at the price of the day. But it was only in 1829 that a similar privilege was conceded to private bullion-merchants. The consequence, however, of conceding to them the privilege of obtaining coin of the old standard was, that in the six years from the date when it commenced to 1835, when the new Act took the privilege away, nearly as much private gold bullion was brought to be coined as in the eleven preceding years: and when the privilege was taken away, there was a very limited coinage of the new gold coin, and that coinage was principally of Government gold."—After the passing of the Act of 1835, the mint speculations would seem to have been less successful; at least, if we are to credit the following, which is affirmed under similar authority with the passages just quoted:—"The difference of price even of unstamped pure gold, as compared with stamped one-twelfth alloy coin was such, that the Mint Committee of Calcutta, in the year 1836, applied to Government, and obtained leave to

REG. II. of 1824 abolishes the mint at Furruckabad.

Res. VII. of 1833 alters the weight of the new Furruckabad rupee, and assimilates it to the legal currency of the Madras and Bombay Presidencies, and adjusts the weight of Calcutta sicca rupees thus:—

Calcutta sicca rupee ... weight 192 grs. ... fine 176 ... alloy 16 Furruckabad rupee ... weight 180 grs. ... fine 166 ... alloy 16 The tola or sicca weight 180 grs., introduced (as stated in detail

at p. 7, supra).

ACT XVII of 1835, Sec. 7 declares, "and be it enacted, that the under-mentioned gold coins only shall henceforth be coined at the mints within the territories of the East India Company:—

1st.—A gold mohur or fifteen rupee piece of the weight of 180 grs. troy, and of the following standard, viz.: 11-12ths, or 165 grs., of pure gold; 1-12th, or 15 grs. of alloy": with proportionate subdivisions.

SEC. 8 defines the devices these coins are to bear.

SEC. 9. "And be it enacted, that no gold coin shall henceforward be a legal tender of payment in any of the territories of the East India Company." (Passed 17th August, 1835).

Act XXI. of 1835 defines the weight and value of the copper currency, in the Presidency of Bengal, as follows:—

"1 .- Pice, weighing 100 grs. troy.

"2.—A double-pice, 200 grs. troy.

"3.-A pie, or 1-12th of an anna piece, 331 grs."

SEC. 2 enacts that "the said pice shall be a legal tender for 1-64th of the Company's rupee, and the said double-pice for 1-32d of the Company's rupee, and the said pic for 1-192d of the Company's rupee." (Passed 7th December, 1835).

Acr XIII. of 1836 directs that the Calcutta sicea rupee shall cease to be a legal tender from the 1st January, 1838; but shall be received at public Treasuries by weight, subject to one pie for re-coinage: and further limits the circulation of certain local copper coins.

Act XXXI. of 1837 merely refers to devices.

Acr XXI. of 1838 authorises the "coinage and issuing of any silver coins of a value represented in even annas, or sixteenths of the

As there are no Preambles to the Acts, we are left to discover the reasons which led to this abrupt announcement. 'The Minutes of Consultation in Council' might perhaps disclose the guiding motive. In this instance, however, silence need not be taken for discreet reticence, for many good and valid reasons suggest themselves as warranting the course pursued. And in regard to the new aspect that the gold discoveries have since given to the comparative values of the precious metals, it is to be remembered that at the moment of the passing of this Act, gold stood relatively to silver at over 15 to 1 in the local markets.

Company's rupee," of the same standard as the higher denominations.

Acr XXXI. of 1839 prescribes punishment "for drilling, deficing, or debasing current coin," etc.

Acr XIII. of 1844 is an Act for the withdrawal from circulation of the Trisoolee pyce in the province of Benares.

Act XXII. of 1844 merely extends Act XXI. of 1835 to all "the territories of the East India Company."

Acr VI. of 1847 refers to the copper currency of the Straits' Settlements.

To complete the series of Government documents, I append to the more formal legislative enactments, the substance of the notification of the 22nd of December, 1852; which, in its opening paragraph, likewise sufficiently explains the nature of the intermediate order of 1841.

"No. 26. For William, Financial Department, 22nd December, 1852.—Notification.—By Sec. 9, Act XVII. of 1835 of the Government of India, it was enacted, that thenceforward no gold coin should be a legal tender of payment in any of the Territories of the East India Company; and, accordingly, gold ceased from the date of the passing of the Act to be a legal tender of payment in the Company's Territories in India."

"But, by a Proclamation issued on the 13th January, 1841, officers in charge of public treasuries were authorized freely to receive gold coins, struck in conformity with the provisions of the same Act XVII. of 1835, at the rates indicated by the denomination of the pieces, until they should have passed certain limits of lightness, set forth in a table published with the Proclamation, or until further orders; and gold coins have been thus received in liquidation of public demands up to the present date."

"Notice is now given . . . that on and after that date [1st January, 1853,] no gold coin will be received on account of payments due, or in any way to be made to the Government<sup>2</sup> . .

<sup>1</sup> I have not failed to examine this Proclamation. It specifies the devices (Recerse: "A lion and a palm-tree") for the new gold coinage, "in conformity with Act XVII, of 1835"; and proceeds: "officers in charge of public treasuries are hereby authorized freely to receive these gold coins at the rates, until further orders, respectively denoted by the denomination of the pieces, until they shall have passed the limits of lightness allowed for wear, laid down in the annexed table, when they will only be receivable as bullion, and be subject to a deduction of one per cent, for seignorage."

I do not ordinarily permit myself to criticise the acts of the Government of India; but these orders seem fairly to demand a passing notice. Viewing the peculiar element of suspicion of motives so strong in Asiatic minds, and the importance the natives of India attach to every varying phase of the dealings of their rulers, it is clear that the "Resolution" of 1852 was neither wise nor politic; it is doubtful whether, under the circumstances, it was just. The reservation of "until further orders," so clumsily inserted in the Proclamation of 1841, might convey its special meaning to the ear of an English lawyer, but it is not likely to

Gold will continue as heretofore, to be received into any of the mints for coinage, under the Act and Rules at present in force for the coinage of gold, but Mint certificates for gold coins will be discharged in gold only, and no such certificate for gold will be accepted in any public treasury in liquidation of public demands, or on account of any payment to the Government whatever."1

The Madras and Bombay Governments seem to have pertinaciously abstained from legislating on coinages and currencies, and their Statute Books are altogether silent on these subjects, until the action of the Supreme Government is brought to bear on them in 1835. Such being the case, I am unable to elucidate the measures of Mint progress in the minor Presidencies.

have borne its full significance to the intelligence of the Native banker : apart from

have borne its full significance to the intelligence of the Native banker: apart from this, it is clearly a question whether the tenor of the Proclamation itself did not imply an understood obligation on the part of Government, to receive back the gold coined and issued under its provisions, coupled as those provisions were with the inducements held out to aid the circulation, that the officers of Government were enjoined "freely to receive these gold coins at the rates" etc.; the only obvious restriction, beyond the formal "until further orders," being that the pieces should not have "passed the limits of lightness allowed for wear" etc.

1 The same writer in 'Allen's Indian Muil,' 1854, who clearly has had access to official documents, thus elucidates the motive and object of the Order of 1852:—"We have explained the condition of the gold coin of India, and the erroneous principles adopted for its manufacture. Things continued in this state when the gold of California and Australia began to affect the market, and to change the relative value of that metal to silver. The first considerable increase in the import of gold at Calcutta was in the year 1848-49, and a large portion of it was sent to the mint, in that and the following years, for conversion into low-standard lion-device pieces, that and the following years, for conversion into low-standard lion-device pieces, [XVII. of 1836]. The sending of gold to the maint at this period was in reality a mere sale of the metal to Government for silver, at the par rate of 15 to 1, which then began to prevail as the market rate. The Mint certificates, obtained for gold delivered, were immediately paid in at that par, in satisfaction of Government dues, or were negotiated at the banks, where silver was always claimed upon them under or were negotiated at the banks, where silver was niways claimed upon them under the option then given of receiving the amount in rupees at the par in question. The gold thus, when coined by the Mint, remained as a dead balance in the Govern-ment treasury, not being issuable at the par of 15 to 1, in the condition of base standard coin, to which it had been manufactured. Besides this process of gold accumulation through deliveries at the Calcutta Mint, low standard coin, previously issued, began also to be paid into the treasury, at the established par rate in ordinary transactions [under the Proclamation of 1841]; so that out of a total amount of lion-device gold modurs, not exceeding in value seventy lacs of rupees, which was the value of the coinage up to that date, as before shown, more than fifty lacs were, in 1852, in deposit in the Government treasury as a dead unserviceable balance. It was at this time that the Government of India began to contemplate measures for converting its entire 5 per cent. Debt into Stocks at 4 per cent. The prospect, therefore, of having the balance to which the Government looked for the prospect, therefore, or having the balance to which the Government looked for the means of completing this operation rendered unserviceable for the purpose by the substitution of gold coin, not a legal tender, for the rupes claimable by the public creditors who might elect to receive payment in cash, was by no means agreeable. A prompt remedy was necessary, and the question being referred to the Court of Directors, the desire to adhere still to their old principles suggested that the low standard gold coin, not being a legal tender, the receipt of it by Government should be altogether stopped; and this was accordingly done in 1853, by public notice in the Gazette of Calcutta."

Having completed this summary review of the gold and silver coinages, I now revert to Prinsep's Tables.'—E.T.]

Table of the Coinages issued from the Calcutta Mint from 1801-2 to 1832-33.

Official Year. Gold. Silver.		Total sikkā rupeca.				
			Silver.			
1801-2 1802-3 1803-4	83,139 12 1,27,848 0 89,496 8	0	30,73,226 12 0 46,64,736 8 0 77,41,674 4 0	31,56,366 47,92,584 78,31,170	8 8 12	000
1804-5 1805-6	1,26,940 0	0	1,00,78,060 12 0 71,20,322 12 0	1,02,05,000	12	0
1806-7	1,30,454 0 91,773 8	0	71,20,322 12 0 1,63,14,198 12 0	72,50,776 1,64,05,972	12	0
18^7-8	2,31,752 4	ŏ	1,45,80,126 0 0	1,48,11,878	4	ő
1808-9	50,800 12	ŏ	1,11,30,380 4 0	1,11,81,181	0	0
1809-10	31,885 8	0	82,76,886 0 0	83,08,771	8	0
1810-11	10,29,656 0	0	1,65,81,865 0 2	1,76,11,521	0	2
1811-12	18,54,703 9	4	83,83,885 12 1	1,02,38,589	5	5
1812-13	12,56,319 0	0	78,51,046 10 0	91,07,365	10	0
1813-14	10,91,853 12	8.	28,31,166 11 11	39,23,020	8	7
1814-15	15,01,964 14	.8	71,29,817 15 1	86,31,782	13	9
1815-16	9,35,987 4	0	1,89,76,463 5 5	1,49,12,450	9	5
1816-17	13,63,200 14	8	2,21,48,114 5 6	2,35,11,315	4	2
1817-18	15,67,279 9	40	55,15,411 7 8	70,82,691	1	0
1818-19	3,63,105 6	8	1,66,40,247 2 7	1,70,03,352	9	3
1819-20 1820-21	5,37,670 9 8,26,046 0	0	2,63,46,438 13 3 1,08,36,215 6 11	2,68,84,109 1,16,62,261	6	11
1821-22	4,26,331 13	4	74,58,694 4 5	78,85,026	í	19
1822-23	2,79,211 6	8	68,52,391 7 8	71,31,602	14	4
1823-24	1,26,509 0	0	49,48,564 6 5	50,75,073	6	5
1824-25	29,72,948 6	8	69,66,557 2 3	99,39,505	8	11
1825-26	33,65,020 5	4	97,19,093 15 1	1,30,44,114	4	- 5
1826-27	34,26,832 0	0	80,97,615 0 0	1,15,24,447	0	0
1827-28	4,79,616 0	0	66,69,149 15 0	71,48,765	15	- 0
1828-29	5,01,296 0	0	57,00,840 2 11	62,02,136	2	11
1829-30	10,24,032 0	0	83,95,484 11 6	94,19,516	11	5
1830-31	17,58,896 0	0	38,13,496 7 8	55,72,392	7	8
1831-32	18,39,392 0	0	44,77,722 14 4	63,17,114	14	4
1832-33	23,71,024 0	0	76,90,479 15 8	1,00,61,503	15	8
	3,18,62,986 4	8	30,19,70,375 1 5	33,38,33,361	6	1
P 100	COPPER	0.7403				
From 180 181		90	10,99,170 5 6			
	6-27 to 1832-	0.0	20 17 107 1 5			
104	0-11 10 1002	99	10,11,461 1 5	32,98,416	13	5
			lotal sikká rupees	33,71,31,778	3	6

<sup>&</sup>lt;sup>1</sup> [I had designed, as I intimated in a note p. 41, to have omitted all the details of the working of the Indian Mints. However, as I have since found reason to believe that a general return of the currencies issued by the East India Company would possess an interest with European readers, I have determined to abbreviate the redundances of Prinsep's forms, and endeavoured to complete the several statements, as far as possible, from documents in the East India House, which have been most liberally placed at my disposition by Col. Sykes.]

Table of Silver Coinage in the Provincial Mints	TABLE of	Silver	Coinage	in	the	Provincial	Mints
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	Benare	<b>a.</b>		Farrukhál	66.		Signr		
From 1804-5 to 1832-3, incl.	11,14,79,898	6	6	7,74,66,519	3	11	53,99,282	8	6
Of which sum private bullion Government ditto	6,67,85,549 4,46,94,348		8 10	3,10,18,509 4,64,48,009			7,89,496 46,09,786	6	4 2
Value of copper coinage up to the same period	13,90,140	0	0	75,594	12	3	2,83,388	0	0
Total	11,28,70,038	6	6	7,75,42,114	0	2	56,82,670	8	6

Coinage at the Calcutta Mint	Sikká R	s. 33,71,31,778
Coinage at Benkres	**	10,58,15,663
Coinage at Farrukhabad	**	7,26,95,732
Coinage at Sagar	**	53,27,503
Total Coinage of the Bengal Presidency from 1801-33:	Sikka R	s. 52,09,70,676

[It will be seen that the totals in the preceding Tables are given in sikká and in Farrukhábád rupees. Act XVII. of 1835 introduced the Company's rupee as the one uniform currency of all India; this coin is composed of 165 grains of silver and 15 of alloy, and stands the declared equivalent of the old Bombay, Madras, Farrukhábád, and Sonát rupees—being defined as corresponding in value to † has of the superseded Calcutta sikká rupee. All Government accounts, subsequent to the date of the passing of this Act, are therefore made up in the new or standard Company's rupee.

Table of the value of Gold and Silver Coined in the Mints of Calcutta, Madras, and Bombay in each year from 1833-34 to 1854-55. (From Official Returns at the India House.)

	CAL	CUTTA.	MA	DRAS,	В	OMBAY,	TO	TAL.
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.	Gold,	Stree,
	Value in Co.'s Ho.	Value in Co.'s Rs.	Value in Co.'s Es.	Value in Co. 's Ro.	Value in Co.'s Rs.		Value in	Value in
1833-34		1,23,47,561	89,58,800		2000		Co.'s Es.	Co, s Rs.
1834-35		1,83,10,055			101	10,88,156		1,77,42,217
1835-36		1,62,49,960	28,75,200	35,21,000	2777	54,75,286	the state of the s	2,19,06,341
1836-37		2,98,14,302	-		191	64.34,764	A 1 4 4 4 5 1 1 1 1	2,26,84,724
1837-38		2,09,34,103		ewtions of at were		82,71,877	68,145	3,80,86.179
1888-89		2,67,68,748	suspen	sted from	***	1,09,48,636		3,18,82,730
1889-40			1886 to	1541,	186	1,17,72,822	3,44,706	3,85,86,565
1840-41	5,67,720	2,15,77,576			100	98,28,901	7,91,557	3,14,06,477
1841-43		1,64,10,686	1 0	****	***	1.20,35.236	5,67,720	2,84,48,922
1842-43		2,51,26,312	10.111	25,85,978	***	51,75,829	2,31,045	3,28,87,619
1843-44	1,66,335	2,06,11,864	** ***	16,40,203	***	1,07,95,668	mone	3,30,47,735
1844-45		2,17,66,075	222	42,28,459	***	2,07,32,497	1,66,335	4,67,27,031
1845-46	1,79,760	2,83,35,602	83,595	51,72,430	100	1,54,60,180	2,68,355	4,69,68,212
	1,54 535	3,25,89,882	1,00,545	22,32,281	36,390	1,36,60.807	2,91,470	3,84,25,420
1846-47 1847-48	4,27,335	1,64,78,122	. 191111	60,84,016	***	66,46,956	4,27,335	2,92,69,694
	1,62,930	1,01,19,938	3,00,000	34,95,301	***	42,07,359	4,62,930	1,78,22,598
1848 49	7,04,700	1,33,03,369	******	12,96,676		1,11,92,701	7.04,700	3,57,92,646
1849-50	8,24,525	1,35,97,117	******	8,64,372	15,300	96.50,554	3,39,825	2,41,12,043
1850-51	12,17,820	1,21,31,097	*****	19,84,271	19,350	1,20,78,906	13,87,170	2,61,64,274
1851-52	6,25,500	1,78,80,191	*****	36,27,082	100	2,08,97,949	6,25,500	4,24,05,222
1852-53	*******	2,73,66,206	** ***	39,35,171		2,37,98,471		5,50,99,848
1853-54	14,56,785	2,31,82,702	******	67,50,846		2,26,00,817	14,56,785	5,25,84,365
1854-55	26,760	70,43,170	******	28,68,429		87,47,416	26,760	1,36,59,015
	1,32,35,168.	41,68,81,983	73,18,140	5,25,68,015	71.040	24 60 90 999		

Table of Imports and Exports of Treasure (Gold and Silver) in each of the Presidencies of India, from 1813-14 to 1853-54, at 2s. the Ruper.

1000000		BENGAL	MT.			MADRAS	RAS.			вомвау.			TO	POTAL.	
TRAB.	Imports,	Exports,	Net Imports,	Net Esp.	Imports.	Exports.	Net Imp.	Net Esp.	Imports.	Exports.	Net Imports.	Imports	Exports.	Net Imports.	Not Exp.
2000	2	1		2	3	4	a	3	3	3	3*	7	8	3	4
1813-14	581,403	4,975	580,128		142,143	30,755	788,111	1	207,822	181,043	96,779	501,308	216,074	718,294	
_	1,068,644	15,462	1,058,182	1	100,807	10001	90,833	-	297,170	65,168	232,000	1,490711	90,694	1,376,017	
	1,800,407	1,575	1,801,882	***************************************	111,701	10,755	100,946	-	604,788	7,743	597,045	2,519,835	20,073	2,400,823	
	8,187,198	16,900	8,168,298		174,827	24,416	149,811	-	801.274	4,216	297,058	4,100,699	45,082	4,115,167	
	8 904 7119	201 725	3,170,977		179,863	4.577	108.965		1166.685	26,417	1,140,268	4,549,999	65,719	4.479.510	
	4710.010	04040	1 (201 3042		097 0430	808.0	900 150		1 001 400	2000	1 835 646	0.750,009	162.00	O WELL 1110	
	00001000	0000000	0121220	-	190 202	10.000	102,000	-	4,000 p. HAR	00700	20000000	4 000 3 000	900 000	07.007.00	
	#WASHIELD	and the	0704070	******	200,000	Control	103,004	-	( account	01,000	0000	doll, long	00M,403	The Work	*****
	10,001,724	113,936	085.750	******	088,888	1,425	128/782	-	670,231	46,624	023,007	3,271,211	151,185	3,109,216	*******
	2,145,453	1,239,639	900,814	******	208,485	16,189	236,510		520,276	46,799	473,477	2,910,238	1,300,427	1,615,801	*******
	1,700.845	1,594	1,705,251		312,173	15,286	295,887		567,593	39,014	521.579	2.579,611	55,804	2,143,717	
	1 900 5 55	756.599	542,960		123,980	70,929	23,740		697,630	156,659	541.988	2,121,471	983,405	1.138.006	
	100 016	160 949	270 077		430,155	917.691	919.474		215 708	65 985	650.468	9.096.089	418 845	1,419 917	
1807, 95	100000	18.970	1 007 107		282 100	505,000		980 002	1 180 874	19 507	110 051	0.00000	7.60 807	1 550 148	
	1 004 980	111 548	1117 200	-	043 162	20 003	919 000	nostone	OC1 504	06,610	087 075	0.476.588	0118 8455	0 048 048	:
_	0.00 0.10	449,000	000 000		981 868	901 861	100	190.519	1 050 100	20 601	1 170 000	9 010 010	0000 0000	Otto Division	
00.000	020 220	140,000	490,500		1 67 680	110 508	40.844	010501	1 000 400	000,000	0000000	0.071.000	100,000	0,000,010	
	200,000	100000	640,000		100 002	240,100	Torri fo	400.000	100000000000000000000000000000000000000	200,000	1,000,000	4044.704	12/000	1,000,018	
_	020,000	164,032	510,193		CINC, OLD	OM,123		430,815	1,102,200	04/165	409/2/20	2,157,030	555,701	Topicon'	*******
_	001,214	430,503		1	113,739	115,778	27.2		1,015,312	161,938	470,000	1230,281	600,217	1,125,064	1011111
_	551,155	1,133,547	******	730,064	56,185	387783	-	297,801	735,596	203,514	270,250	1,186,854	1238.02	*******	0000000
_	517,108	783,353		266,245	184,657	301,468	4.11	166,831	494,961	182,827	300,134	1,146,706	1,970,648	continue	123,942
_	508,176	247,555		:	114,5227	301,385		80,838	1,198,438	115,348	1,078,090	1,870,441	564,285	1,312,156	
_	610,224	00,553	579,070	!	158,116	106,377	46,738		1,093,683	21,808	1,071,875	1,893,022	194,789	1,098,288	*******
_	687,168	56,599		:	112,760	201718	81,232	-	1,346,596	19,881	1,395,555	2,146,464	108,108	2,038,356	-
_	612,527	161,816		1	75,958	77,616	3,348	7	1,347,661	30,001	1,317,080	9,036,166	263,933	1,779,933	-
	1,048,885	140,433		-	129,543	100,431	1117		1,402,675	98,790	1,308,885	2,640,100	340,654	2,299,446	
	1,219,081	102,700		-	181,181	91.217	39,897		1,660,754	93,908	1,500,813	3,010,919	347,906	2,663,013	
	1,425,786	200,017		-	112,406	127,446	-	15,040	606,071	143,059	463,012	1.945.963	470,522	1,474,741	
	918.807	146,206		1	68,146	80,300	-	21,154	790,298	130,979	628.319	1,786,251	306,483	1,419,766	
	589,517	159,155	839,433	!	67,500	180,481	;	112,921	784,154	175,488	608.718	1,841,833	515,074	1,326,259	-
	1,618,711	72.961		!	29,413	25,317	54,095		1,716,166	117,545	1,507,621	8,448,990	215,796	3,997,404	
	1,752,376	185,794		:	115,940	21,600	03,640		2 927 000	538,681	2 388 379	4794,676	746,075	4.018.601	
	1,581,365	206.543			188,561	65,053	123,548		1,982,545	645,243	1 937 300	8,759,471	1,106,839	2.645,632	
	001.005	987,079			170,007	65,764	106.533		1,359,675	463,183	900.471	9 405 057	816,007	1 679 980	
	1 9261 008	100.750			147 100	68,169	70.000		1 450 101	2000 0000	1 008 100	9 000 001	200 614	9 990 089	
	247 008	0.05 0.73	_	157 848	199.159	914.909	and a	89 100	1 001014	304, 704	042 430	1 078 900	1 446 007	647 989	
	1 11 1 1000	100000	_	Carol for	119 100	200 000		Contraction of the	2,000,000	1 000 015	1 0 00 000	4 3044 1040	0 200 000	1 000 4 000	
	1 014 000	200,000	_		191 199	40000	00000	ere/oro	2000 2000		1,147,030	9,001,000	BANGA 41	1,004,100 0 400 202	
	0004194	Distant.	_	*******	000,000	100/100	00000		2,000,000		L'ord, Ma	0,000,000	10000	2,120,000	-
1990-01	1,189,484	276,329	918,130	******	200,110	104,140	075,651	1	2,362,314	100,818	2,201,395	3,811,806	011,287	3,379,521	1
	0.45000 T	250,088	_	*******	107,338	215,768	81,630	-	2,448,130	452,732	1,905,438	5,052,058	919,088	4,132,973	1
1805-03	3,390,3967	476,375	_		676,854	36,382	580,472		2,860,595	342,472	2,318,064	6,881,877	1,055,930	6,776,148	
_	0.007.005	010 107	-		400 100	116,007	401 044		0 0000 170	0000 200	0 3 5 Dag 1	A 40 mm	T ACCR ANDER	di spino cherit	

The figures entered in the preceding Official Return, so far as they relate to the commerce of Bengal from 1813-14 to 1832-33, will be found to differ from those originally published by Prinsep. It may be necessary to explain, that his Tables exhibited the imports and exports of the isolated Presidency of Bengal, and, as such, comprehended not only the trade with the United Kingdom and foreign countries, but likewise the traffic of the Port of Calcutta, etc., with the coast and the other Presidencies. In the present return, the local port to port trade is properly excluded.<sup>1</sup>

It will be seen that the foregoing Table does not discriminate the relative amount of gold and silver imported or exported in each year, nor do the official documents at command admit of the separation of the two items earlier than 1846-47; subsequent to which, the proportion runs as follows, for the three Presidencies:—

		GOLD.			SILVER.	
	Importe.	Exports.	Benaina.	Imports.	Exports.	Bensins.
	£	£	OBETU	10/c	£	£
1846-47	851,738	2,890	+ 848,848	2,088,183	710,978	+1,377,205
1847-48	1,048,778	9,661	+1,039,117	924,612	1,416,376	-491,764
1848-49	1,401,748	52,829	+1,348,919	2,802,755	2,486,913	+ 315,842
1849-50	1,160,661	64,868	+1,095,793	2,236,146	906,374	+1,329,772
1850-51	1,155,310	2,016	+1,153,294	2,656,498	539,273	+2,117,225
1851-52	1,338,778	71,165	+1.267.613	3,713,280	847,923	+2,865,357
1852-53	1,335,164	168,805	+ 1,168,359	5,496,214	886,424	+4,609,790
1863-64	1,101,136	17,265	+1,083,871	3,770,821	1,466,030	+2,304,791
	9,393,313	389,499	9,003,814	23,688,509	9,260,291	14,428,218

The proportions of each metal absorbed by the several divisions of

<sup>1</sup> [ The delay that has occurred in the printing of this sheet enables me to add parallel returns for the year 1854-55. The Madras and Bombay totals hereunto subjoined are derived from official sources; the Bengal return is taken from Bonnaud's 'Commercial Annual,' as the formal statements relating to that Presidency have not yet been received at the India House:—

	DIFORTS.	EXPORTS.	NET IMPORTS	AND EXPORTS.
	14704165		Net Imports,	Net Exports.
Bengal Madras Bombay	£ 603,154 194,221 1,188,913	£ 1,072,194 521,814 353,664	£	£ 469,040 327,593
Total	1,986,288	1,947,662	38,626	

<sup>&</sup>lt;sup>2</sup> [The unimportant discrepancies that may be detected between the lower figures of these totals and those entered at the end of the Table in page 82 and elsewhere, are explained to have arisen from the varying results of working in gross and in detail, and the exclusion of fractions of rupees and the rejection of unit figures, to convert the rupes into sterling money at different stages of the arithmetical process.]

the Indian empire,	during the	eight	years in	question,	are embodied in
the annexed table :-					

	Ca	LCUTTA.	M.	TEAR.	Box	DAY.
REMAINS.	Gold.	Silver.	Gold.	Bilver.	Gold.	Silver.
	£	£	£	£	£	£
1846-47	215,530	+ 835,294	27,561	+ 51,469	605,757	490,442
1847-48	362,554	- 520,402	48,558	-130,667	628,005	159,305
1848-49	415,947	+ 216,097	33,173	-649,826	899,799	749,571
1849-50	275,543	+ 585,117	55,091	- 6,291	765,159	750,946
1850-51	317,998	+ 595,154	32,868	+123,097	802,428	1,398,974
1851-52	401,243	+ 1,654,639	76,069	+ 5,561	790,301	1,205,157
1852-53	575,351	+2,342,261	49,121	+ 491,353	541,887	1,776,176
1853-54	481,756	+ 1,166,317	86,719	+ 375,115	515,396	763,359
£	3,045,922	+ 6,874,477	409,160	+ 259,811	5,548,732	7,293,930

In appropriate supplement to these Tables, and to enable my readers to judge of the comparative importance of the bullion traffic with India, I annex a statement from Col. Sykes' paper 'On the External Commerce of British India,' published in the 'Journal of the Statistical Society,' for June, 1856, and further brought up to the present date, which exhibits the relative values of goods and bullion imported and exported during the six years from 1849-50 to 1854-55.

Abstract of Imports and Exports of Goods and Bullion from 1849-50 to 1854-55.

Yours ended sub April.	Total amount of Goods imported into the three Presidencies.	Total amount of Goods imported into the three Presidencies.	Excess of Goods experted.	Net import of Bullion.	Excess of Experts of Goods, demosting Net Import of Bullion.	Bills drawn upon India by the Directors.	Pinal Baiances of Trade in favor of India adjusted by other means
	£	4	£	£	£	£	£
1849-50	10,300,000	17,312,000	7,012,000	2,425,000	4,587,000	2,936,000	1,651,000
1850-51	11,559,000	18,164,000	6,605,000	3,270,000	3,335,000	3,236,000	99,000
1851-52	12,240,000	19,879,000	7,639,000	4,133,000	3,506,000	2,777,000	729,000
1852-58	10,071,000	20,465,000	10,394,000	5,776,000	4,618,000	3,317,000	1,301,000
1853-54	11,122,000	19,295,000	8,173,000	3,389,000	4,748,000	3,850,000	934,000
1854-55	12,442,000	18,298,000	5,856,000	38,000	5,818,000	3,669,000	2,149,000
Total	67,734,000	113,413,000	45,679,000	19,031,000	26,648,000	19,785,000	6,863,000
Average	11,289,000	18,902,000	7,613,000	3,171,000	4,441,000	3,297,000	1,143,000

As the statements in the above Table are understood to have been

<sup>&</sup>lt;sup>1</sup> [Mr. Low's Circulars furnish us with the actual shipments of treasure for India

prepared from official Custom-House returns, they may be accepted as pro-tanto authentic; and as the Government of the East India Company adhere to the highly primitive system of levying duties upon exports, the totals thus obtained are probably as trustworthy as the corresponding entries of imports.

As intimately connected with the subject of the demand for silver bullion in India, I also append a full return of the responsibilities undertaken by the East India Company on account of railways in course of construction. I have not been able to obtain exact statements of the several amounts actually expended in India—comprising the sums repaid by the Government in silver coin in return for the gold deposited in the treasury in Leadenhall Street—but the difference between the totals "paid in" and "re-issued in England" will furnish an approximate estimate of what the liability amounts to.

by the Peninsular and Oriental Company's vessels, Juring the years 1855, 1856, and 1857, amounting to the subjoined totals:—

			1500.			
Us	CETED	KINGDOM,"	Clanuary to	Decemberly	Отикк Рокт	(Il months).
Calcutta	lold.	£ 350	Silver	£ 2,299,235	Silver	£ 603,141
Madras	.,	17,789		177,173		289,014
Bombay		1,282	SCORE STATE	2,267,400		51,344
		£19,371	聚	£ 4,743,808		£943,499

The grand total shipped for the East in 1855 was—From the United Kingdom: Gold, £948,272; Silver, £6,409,889. Other Ports: Gold, £243,239; Silver, £1,524,240.

			Kingbon.		Ożna	R PORTS.
Calcutta	**	£719 28,523 7,906	Silver	£ 3,417,091 213,781 4,748,631		£ 433,303 327,494 163,216
	1	37,148		£ 8,379,503		£ 924,013

Total exports for the East from the United Kingdom for 1856; Gold, £404,749; Silver, £12,118,985. Other Ports: Gold, £74,039; Silver, £1,989,916.

				and to				
		Ux	TED KIN	GDOM.		OTE	IR PORTS.	
CalcuttaC Madras Bombay		£36,040 97,788 30,565	Silver,	£ 5,689,015 403,646 5,275,950	Gold,	£30,896 15,300 16,161	Silver,	£893,407 460,710 523,956
52200007	4	164,393		£ 11,368,611		€ 62,367	£	1,888,073

Total exports for the East from the United Kingdom: Gold, £269,275; Silver, £16,795,232. Other Ports: Gold, £259,986; Silver, £3,350, 689.

There were no shipments for either of the three Presidencies in January, and only Dis, Cliffer Borning in February, 1804.

It may be necessary to add that the payments into the Company's Treasury on account of Railways commenced in 1848-49, and that the rate of exchange for Indian subscribers was permanently fixed at 1s. 10d. per Company's rupee.

Table exhibiting the sums paid into the East India Company's Treasury, in London, on account of Railways in India, up to 30th Sept., 1856.

Names of Companies.	Cwrital senctioned.	Total paid in.	Illa-issued in Bagland.
East Indian Great Indian Peninsula Madras Sind Bombay and Baroda	£ 10,731,000 4,000,000 4,000,000 500,000 600,000	£ 6,219,733 2,525,113 1,926,354 265,614 334,611	£ 3,094,126 866,263 1,027,805 92,480 58,891
	19,731,000	11,271,325	5,139,565

Another important item bearing upon these details still remains to be noticed—that of the comparative value of the uncurrent silver coin received into the mint, as contrasted with the amount of bullion

<sup>&</sup>lt;sup>1</sup> [The rate of exchange thus permanently established, irrespective of intrinsic value or any possible scheme of commercial par, has necessarily had the effect of insuring that nearly all the funds required for railways should be raised in England to the exclusion of Indian subscribers. The second Table at page 14 will indicate the intrinsic value of the Company's rupee, and its details will exemplify how the exchangeable value of that coin is liable to be affected by external influences; but, under ordinary circumstances, the par value may be fairly taken at 2s.; now, under this permanent and immutable arrangement, whatever the commercial rate of exchange might chance to rule at, Indian contributors to their own local railways had to pay 218 Company's rupees for every £20 share, or about 9 per cent. more than the nominal value of the stock, while under favorable rates of exchange, such as we have experienced of late, by remitting the money to England, the £20 share could be purchased for about 184 Company's rupees, making a total difference of no less than 17 per cent! In a similar degree have our Eastern speculators reason to complain of the comparative rates of interest; for while the Home Government was undertaking these millions of railway debts, and guaranteeing a wivinwase rate of profit at 5, and never less than 4½ per cent., the Government of India was endeavouring to persuade its obedient subjects that 4, and even 3½ per cent. (28th October, 1853) was quite as much as their money was worth; and the latter rate was not to form an ascending minimum like the railway guarantee, but a maximum, liable, on the centrary, to reduction at any favorable moment, after the manner of the extinguishment of the 5 per cents in 1853 and their conversion into form, the consentient holders of which were startled by the opening of a new loan at the former rate, in less than fourteen months after the completion of this—to use the words of the Governor-General—"not the less successful" operation. To sum up these contrasts,

brought for coinage by individuals unconnected with the State: 1 the one indicating the amount of the old currency replaced by new coin, the other disclosing the increase made to the circulating medium; though this latter is liable to be affected by too many varying influences to be received as any criterion of the total permanently available to meet the monetary wants of the country.

I limit the present returns to the rupee or standard currency; commencing with those of the year 1833-34, in order to embrace the entire period comprised in the parallel Table at page 81.

Notwithstanding his remark on the subject at page 41, Prinsep omitted to discriminate in his Table of the Coinages of the Calcutta Mint the separate amounts derived from each source. In the returns of the Provincial Mints (page 81) the difference is duly marked.]

<sup>2</sup> [ The coinage of gold may be gathered, from the previous Tables, to have been in proportion to that of silver:

In the Calcutta Mint, from 1801-2 to 1832-33 as 3.18 to 30.19 from 1833-34 to 1854-55 as 1.32 to 41.68 Madrus from 1833-34 to 1854-55 as .73 to 5.25 Bombay from 1833-34 to 1854-55 as .007 to 24. No gold was coined in the European mints of the North-Western Provinces.]

Assay produce of Silver Bullion received into the Mints of Calcutta, Madras, and Bombay, in each year from 1833-34 to 1854-55; and of the value of the Silver Coinages for the same period.

		CALCUTTA MINT.			MADEAS MINT.			BORRAY MINT.	
	Assur produce of Silver pecelved from individuals.	Value of uncurrent ceins received from Treasury officers.	Silver Coinage.	Assay produce of Silver received from individuals,	Value of uncarrent equis received from Transacty officers,	Silver Coimage,	Assay produce of Silver received. from individuals.	Value of uncurress coins received from Treasury officers,	Sliver Counge.
833 34	Rupees. 1.14,14,455	Bupers, 64,08,247	Bupes, 1,23,47,561	Reposs. 19.66.073	Rapees, 20,15,465	Rupses. 43,11,500	Eupees, 10,03,869	Bupoos. 79,287	Eupees. 10,83,156
834 35	83,08,557	36,99,488	1,33,10,055	16,95,848	17,67,313	35,21,000	47,55,828	8,19,458	50,75,286
835-36	80,88,265	1,36,85,562	1,62,49,960		STREET, STREET		54,88,186	9,46,678	64,34,764
836 37	66,55,749	2,01,44,738	2,98,14,302				49,36,244	23,35,633	82,71,877
837-38	1,30,96,273	1,17,80,627	2,09,34,103	The operations	of this Mint were su	spended from	50,44,627	59,04,008	1,09,48,636
838-39	1,41,26,786	99,74,839	2,67,68,743	1	1865 to 1841,		68,21,565	59,61,257	1,17,72,822
839-40	1,25,58,782		2,15,77,576	-510	100		66,53,727	31,75,174	98,28,901
840 41	1.04,76,052		1,64,10,686	787	3/		61,68,870	58,69,386	1,20,38,236
841-42	97,71,487	84,49,146	2,51,26,312	4,77,640	25,72,885	25,85,978	43,74,350	77,02,971	51,75,329
From China				The Party of the P	11				
1842-43			2,06,11,864	9,11,236	8,07,271	16,40,203	89,51,850	20,98,840	1,07,95,668
1843-44	1,98,12,790		2,17,66,075	11,93,613	86,17,818	42,28,459	1,48,90,842	19,65,848	2,07,32,497
1844-45	1,86,68,022		2,83,36,602	3,96,322	20,31,130	81,72,430	1,66,67,857	8,19,571	1,54,60,180
1845 46	94,00,729	_	2,25,32,332	6,31,824	25,51,079	22,32,281	1,26,71,208	47,71,270	1,36,60,807
1846-47	95,64,692	68,33,535	1,64,78,122	2,01,602	52,38,762	60,84,016	56,45,965	19,98,206	66,46,956
Prom China				10000	3				
1847-48		84,44,763	1,01,19,938	1,03,186	28,95,526	34,95,301	16,21,861	24,76,891	42,07,359
48-49	92,10,387	52,89,827	1,33,03,269	1,76,611	12,11,847	12,96,676	Beturns not	8	1,11,92,701
1849-50	1,03,14,857	_	1,35,97,117	2,39,889	9,48,888	8,64,372	88,24,597	13,26,050	96,50,554
1850-51	95,77,598	_	1,21,31,097	11,96,864	19,15,784	19,64,271	1,19,45,874	47,13,940	1,20,78,906
1861-52	1,97,62,183		1,78,80,191	16,16,247	13,53,124	36,27,082	1,60,77,378	62,78,538	2,08,97,949
852-53	2,71,48,980		2,73,66,206	53,20,920	7.78,360	39,35,171	2,20,43,730	13,51,825	2,37,98,47
863-54	1,43,66,179	30,60,547	2,31,82,702	49,23,033	6,80,475	67,50,846	1,85,36,875	42,83,536	2,26,00,817
854-551	12,79,622		70,43,170	9,10,176	4,00,710	28,68,429	25,75,235	13,15,423	37,47,416
	27,41,57,349	14,54,51,618	41,68,81,983	2,17,61,784	3,07,76,437	5,25,68,015	17,56,00,538	6,56,83,863	24,60,99,288
	)17	41 06 08 067		) 50	A 95.98 991		757	94 19 84 908	

The diminished comage in 1864-66 is attributed (sufficettatively) to the decrease in the imports of aliver builten in that year.

It will be seen from the above figured details, that, during the last twenty-two years, the grand total of the coinage of silver in the East India Company's mints has reached no less a sum than 71,55,49,286 rupees, or £71,554,928: towards this amount 24,19,11,918 rupees were contributed by the old metal of the worn or recalled currencies; and 47,15,19,671 rupees constituted the proportion of bullion brought for coinage by individuals. It may be instructive to test a section of these returns in connexion with the statistics furnished by the bullion trade of India, illustrated at page 83. To select the same eight years for which the figures have been tabulated in that statement (i.e. 1846-7 to 1853-4), it is to be observed, that the total amount of silver bullion-in excess of the returned coin-minted at the three Presidencies, during the period, was over 20 crore of rupees, or twenty millions sterling;1 while the balance of silver bullion remaining in India, on the traffic of the same interval, is seen to amount to 14,42,82,180 rupecs, or less than fourteen and a half millions sterling. The results of the two returns are not so directly dependent on each other, that their non-accordance need cause surprise, nor is there any reason why the five and a half millions of surplus coin may not have been re-exported in that shape, in the ordinary course, even if we did not know that the Company's rupee has hitherto supplied much of the circulating medium of Ceylon, the Mauritius, and the Straits settlements. There is no ground for supposing that any quantity of the silver bullion, used for Mint purposes, is at this time supplied by India itself-though it contributed not unimportantly to the local mints up to 1832-33.2 We may fairly, therefore, take the ebb and flow of bullion, in the every-day transactions of commerce, as a momentary

1 [Detail of Silver Bullion, over and above the recalled coin, minted at the three Presidencies.

For the years	Company's Bupees,
1846-47	1,78,29,573
1847-48	62,15,878 5,28,11,792, excluding
1848-49	98,80,998   Rombay for 1848-49.
1849-50	1,93,79,343/
1850-51	2,27,20,336
1851-52	3,73,55,808 14,74,15,861
1852-53	0,40,10,000
1853-54	3,28,26,087)
Co's Rs.	20,02,27,653
Bengal total	10,68,53,021 1,36,78,362 7,96,96,280
Co's Rs.	20,02,27,653 —]

<sup>2 [</sup>See Table, page 81.]

index of the amount of coin removed by sea-transport; though such a test would by no means demonstrate either the maximum or minimum of that drain in exceptional instances. The inland or conterminous absorption of coined money, on the other hand, is far beyond the reach of the boldest speculation; but, with an existing frontier line extending from Mekrán to the Straits of Malacca, and with the various imperfectly civilized races on our borders all seeking eagerly for the precious metals, we may imagine that the outgoing in these directions can scarcely be inconsiderable. However, even admitting that India temporarily retains the full 14.4 millions of the 20 coined for her in eight years, the amount can by no means be said to be excessive,1 nor is it to be expected-while the monetary laws remain as at present constituted-that the demand should be proportionately lessened; and, as much has been written regarding the undue absorption of bullion by India at large, it may be fitting that I should observe that, whatever may have constituted the attracting magnet, or wherever the ultimate resting-place of the precious metals may have been, in olden times; there is now good and sufficient reason why silver should continue to flow towards our Eastern dominions. touch upon the obvious commercial necessities of our trade as of late balanced, it is to be remembered that India has advanced considerably in material prosperity: not only is there enhanced security of life and property, together with a manifest and natural increase of the population, but the facilities of traffic and real wealth have progressed with equal strides under our rule. There is now but little object in hoarding, less in secreting; the palpable value of money is better understood; and even its conversion into ornaments has comparatively ceased since the introduction of the more extensively alloyed rupee, the hardness of the metal of which neither workers

<sup>&</sup>lt;sup>1</sup> [ The population returns, though most minutely accurate for some portions of India, are but mere guess-work for others. The following is the latest return I have been able to obtain at the East India House. This will give for British India a sturn of 1.1 rupee per head of increase to the currency in eight years:

Under direct administration of the Governor-General (including the Panjab, Nagpore, and Oude)  Under LieutGovernor of Bengal  Under LieutGovernor of North-West Provinces.  Under Governor of Madras  Under Governor of Bombay.	23,055,972 41,212,562 33,216,365 22,437,297 11,109,067
Total British Possessions	131,031,263 48,423,630 517,149
Total	179,972,042 ]

nor wearers approve. Equally have the advantages of direct money payments reached the comprehension of the masses, for not only, as has been remarked, do the landholders no longer pay the Government demand in kind, but, more important still, the adherence to that primitive mode of liquidation has been generally discontinued among the village communities in their internal apportionment of responsibilities.

I may be permitted, in conclusion, to remark, in regard to the proposed re-introduction of a gold coinage, that I am altogether opposed to such a measure. A metal that must be expected progressively to fall in value—whatever the immediate needs of Europe may seem to evidence to the contrary—is not calculated to be favorably received by the people of India, especially as its market rate has already been sensibly affected in that country by the gold discoveries of Australia.

However, on the other hand, I am confident that much of the threatened difficulty might be met by a well-devised scheme for a paper currency, to consist of Government Notes duly notified as legal tenders, and definitively recognised as receivable in payment of the State revenue; but, in such a case, there must be no reservation of "until further orders," as in the Gold Proclamation of 1841; nor must there be permitted to exist a possibility of any future Administration reducing the One Hundred Rupee Note into one of the current value of eighty, as was effected, in regard to all the securities involved. by the conversion of the old five per cent. stock. Possibly few nations could be met with, better prepared than the people of India, to accept a sound and carefully elaborated plan for a representative currency. As contrasted with their conventional morality, whether religious or social, their commercial faith and probity stand out in prominent relief. What they respect among themselves, they revere in their rulers; and, in spite of some awkward incidents in the history of British India, the English name still stands exalted with the mass of the population, who have concerned themselves less about

<sup>&</sup>lt;sup>1</sup> [Col. Sykes, seprá cit., p. 84.]
<sup>2</sup> [The Government orders of 1853-54 directly affected the interest alone of the funds assailed—reducing it from 5 to 4 per cent.—the selling price of the securities remaining little below par; but the opening of the 5 per cent. loan of 1855 depreciated the market value of the principal of the converted stock, in proportion to the relatively enhanced rate of interest offered under the new loan. In the one case, the public naturally inferred that the Government was acting in good faith, and justified—by knowledge inaccessible to the non-official world—in the reduction enforced; a feeling that was still further confirmed by the distinctive proclamation of the closing of all open 4 per cent. loans, and the invitation of subscriptions at 3½ per cent. In the second instance, those who had relied upon the equity, superior information, or prescience of the Government, discovered their error.]

the acts and policy of the Central Government, than the immediate rule of the high-principled gentlemen whom this country has ordinarily sent to administer in detail the local sections of our Eastern empire. In similar relative degree to their advancement and civilization, does their knowledge of the intricacies of banking and exchange strike our European perceptions; so that, whether under the aspect of confidence in our probity, or comprehension of our measures, the Indian public may be said to be fully prepared to welcome an improved and enlarged system of state finance. But, as I desire to confine myself to the record of facts, and ordinarily abstain from speculation or argument, I bring these observations to a somewhat abrupt close.—E.T.]

[As Prinsep's Useful Tables are now definitively associated with his Numismatic Essays, it will be expedient to amplify the former by any information regarding Indian coinage equivalents or monetary values that may chance to be readily accessible; I therefore append a few notes on these subjects, extracted from that admirable work, Sir H. M. Elliot's 'Glossary of Terms used in the North-Western Provinces of India.'

"Dumree is commonly known as a nominal coin, equal to 3 or 3 Dams; or between 2 and 3 Gundas—so that a Dumree varies from 8 to 12 Cowrees, according to the good will and pleasure of the money-changers. It may be useful to subjoin from the 'Dewan Pusund' a table showing the value of Dumrees and Dams:—

```
31
                                              dams.
 1 Dumree,
                                  ****
 2 Dumrees,
3 Dumrees,
                                          61
                                              dams, ..... 1 chhudam,
                                    ...
                                          91
                                              dams.
               ...
                                    ...
                      ***
                             ---
 4 Dumrees,
                                        121
                                             dams, ..... 1 adhela.
               ***
                      +-+
                             ***
                                    ***
                                    ... 15
 5 Dumrees,
                                              dams.
               ...
                      ***
                             400
 6 Dumrees,
                                        187
                                              dams, ..... } puesa.
               ...
                      ***
                            ---
                                    ...
                                   ... 22
 7 Dumrees,
8 Dumrees,
                                              dams.
                                              dams, ..... I puesa.
                                        25
                                   ***
               ...
                     444
                            ....
 9 Dumrees,
                                        28
                                    ***
                                              dams.
               ***
                     ***
                             ***
                                   ... 314
10 Dumrees,
                                              dams, ..... 11 puesa.
               ...
                     ***
                             ***
                                   ... 341
11 Dumrees,
                                              dams,
               ***
                      ***
                             ...
                                   ... 371
12 Dumrees,
                                              dams, ..... 1} puesa.
               ...
                            ***
                                    ... 40
13 Dumrees,
                                              dams.
                      ***
                            ***
                                    ... 44
14 Dumrees,
                                              dams, ...... 12 puesa.
                             ***
```

<sup>&</sup>lt;sup>1</sup> [To those who are curious in the science of numbers and would study the progressive arrangement of popular totals, I would recommend the perusal of the elaborate article, 'Chaurasi,' p. 151.]

```
15 Dumrees, ... ... ... 47 dams.
16 Dumrees, ... ... ... 50 dams. ..... 1 tuks.
```

The table is given with some slight variations in the 'Zoobdatu-l-Quwaneen,' but in neither are the smaller fractional amounts given with correctness.

"DAM, A STA dam. . . . The Dam in the Ayeen-i-Akberce, and in most Revenue accounts, is considered to be the 40th part of a rupee; but to the common people it is known as the 50th part of a Tuka: 25 therefore go to a Pysa, and 12; to an Adhela.

"Chhudan, The proper amount is six and a quarter dams, but by abbreviation it is called Chhudam.

"Gunda, کنگ ا gunda. . . . Like the Dum, the Gunda of account and the Gunda of practice do not coincide. Gundas of account are but little used in the North-Western Provinces, except in Benares and the Dehra Doon, and, in consequence of its former subjection to Oudh, the Nuzurana accounts of Robilcund are frequently drawn out in Gundas. This Gunda is the 20th part of an Anna. The Gunda known to the common people is not of stable amount; sometimes four, and sometimes five, and sometimes even six, go to a pucka Dumree, or Chhudam, according to the pleasure of the money dealers, or the state of the market. Notwithstanding this variable amount, as a Gunda is equivalent to four Cowrees, to count by Gundas, signifies to count by fours, or by the quarternary scale, to which the natives are very partial; -in the same way as to count by gahees, or punjas, is to count by fives, or by the quinary scale. As four Cowrees make one Gunda, so do twenty Gundas make one Pun, and sixteen Puns make one Kuhawun. But there are grades of monetary value even below that of Cowree; for the Hindús seem as fond of dealing with these infinitesimal quantities, as they are with the higher numbers, as exemplified in the article Crore. Thus 3 Crant, or 4 Kak, or 5 But, or 9 Dunt, or 27 Jou, or 32 Dar, or 80 Til, or 800 Suno are each equivalent to one Cowree. These are not in practical use in the North-Western Provinces, but are entered in several account books, and many of them appear to be employed in the Bazar translations of Cuttack and parts of Bengal. See Rushton's 'Gazetteer,' vol. i., p. 182, 1841. The Cowree shell, the Cypræa Moneta, has been subject to strange diminution of value, in consequence of the facilities of commerce, by which their worth has been depressed below that of the precious metals. In 1740, a rupee exchanged for 2,400 Cowrees; in 1756, for 2,560 Cowrees; and at this time as many as 6,500 Cowrees may be obtained for the rupee. Cowree in Persian is translated by Khur-mohra, literally, a 'jackass's' or 'mule's' shell; because mules are ornamented in that country with trappings of shells, as a Gosain's bullock is in this country. In Arabic it is known by Wuda, which Ibn Batuta says is carried in large quantities from the Maldive Islands to Bengal, where it is used as coin; and therefore there can be no doubt that the Cyprun Moneta is meant. The Kamoos adds that it is suspended from the neck to avert the evil eye, as it تعلق الدفع العيون is in India to this day, 1 provided the neck shell is split or broken. Among European nations, excepting the English, these shells are known by the name of Porceli,

<sup>1</sup> ["Gunda is also the name applied to the knotted string which is suspended round a child's neck for the same purpose; but not, apparently, because it has any connection with the Cowree Amulet."] Porcellain, Porcellanen, and Porcelaine, on account of the funcied resemblance of their shape to that of the back of a little pig, whence we have the Chinese porcelain, of which the glaze, or varnish, is similar to that of the Cowree.

"Cnoke, " karor . . . Ten millions. The names of the higher numbers are thus given in the 'Zoobdut-ool-Quwaneen.' 100 Crore = 1 Urub; 100 Urub = 1 K,hurub; 100 K,hurub = 1 Neel; 100 Neel = 1 Pudum; 100 Pudum = 1 Sunk,h; 100 Sunk,h = 1 Uld; 100 Uld = 1 Unk; 100 Unk = 1 Pudhn."]



## BRITISH INDIAN

# WEIGHTS AND MEASURES.

The system of Weights established by Regulation VII. of 1833, is founded on the same unit as the rupee of the equalized monetary system of British India, it having been found that the weight of the Madras, Bombay, and Farrukhábád rupee, already very generally used throughout Upper and Western India, as the foundation of the Ser and Man, could be substituted for the sikká weight of Bengal by a very slight modification of the latter, which would be hardly perceptible in commercial dealings. Other palpable advantages of the introduction of the new weight were pointed out, of which it is only necessary here to allude to the three following:—

- That the man formed from the modified weight would be precisely equal to one hundred English troy pounds; and
- 2. That thirty-five sers would also be precisely equal to seventy-two pounds avoirdupois:—thus establishing a simple connection void of fractions, between the two English metrical scales and that of India.
- 3. The weight of the new unit nearly accorded with the average weight of many of the native tolás sent home for examination at the London mint, by order of the Honourable Court of Directors; as well as with that of Akbar, deduced from the weight of many coins of that emperor.

We shall begin the present division of our subject, as in the case of the Indian coins, by setting forth in the first instance the present legal system, and afterwards providing a brief descriptive catalogue of the many other weights prevailing throughout the Company's provinces, with comparative tables for the conversion of one denomination into the other.

The unit of the British Indian ponderary system is called the tolá. It weighs 180 grains English troy weight. From it upwards

<sup>&</sup>lt;sup>1</sup> Vide a paper on the subject in the 'Journal of the Asiatic Society of Bengul' for October, 1832, vol. i., p. 445.

are derived the heavy weights, viz.:-Chhaták, Ser, and Man (or Maund); and, by its subdivisions, the small or jeweller's weights, called Máshas, Ratís, and Dháns.

The following scheme comprehends both of these in one series :-

Man.	Panseri.1	Ser.3	Chhaták a	Tola.4	Masha.	Rati.	Dhan.
1	8	40	640	3200	38400	307200	1228800
	1	5	80	400	4800	38400	153600
		1	16	80	960	7680	30720
			1	5	60	480	1920
				1	12	96	384
					1	8	32
						1	4

The man (or that weight to which it closely accords in value, and to which it is legally equivalent in the new scale) has been hitherto better known among Europeans by the name of 'bázár maund,' but upon its general adoption, under Regulation VII. of 1833, for all transactions of the British Government, it should be denominated the British Maund (in Hindi, Angrezi Man), to distinguish it at once from all other weights in use throughout the country.5

The Panseri is, as its name denotes, a five-ser weight, and therefore should not form an integrant point of the scale; but, as its use is very general, it has been introduced for the convenience of reference.

The Ser being the commonest weight in use in the retail business of the bázárs in India, and being liable, according to the pernicions system hitherto prevalent, to vary in weight for every article sold as well as for every market, is generally referred to the common unit in native mercantile dealings, as, "the ser of so many tolás," (or sikkás, barís, takás, etc.). The standard or bázár ser being always 80 tolás.

The chhaták is the lowest denomination of the gross weights, and is commonly divided into halves and quarters (called in Bengálí, kachcha) thus marking the line between the two series, which are otherwise connected by the relation of the ser, etc. to the tolá.

The tolá is chiefly used in the weighing of the precious metals and

- "a ser." سير rem پنج or پنج , पश "five," and پنسيري a ser."
- ser, भेर भेटक (Shakespear सेटक), .......
- 2 Chhatak, ezia from s. uz, "six," and iam "a mark."
- · 2514, तोला 🗓
- · Masha, माप मापा, ماشه.
- a Rati, s. रित, रिती, رثى, रिताका. † Dhán, धान्य 'grain, rice.'

  \* In the same way the Madras, Bombay, Farrukhåbad rupee (when the sikkå
  rupee is abolished, and an English device adopted), may be called "the British
  rupee," and in the native languages Rapya Angrezi.

coin; all bullion at the mints is received in this denomination, and the tables of bullion produce (as seen in the foregoing pages) are calculated per 100 tolás. It is also usual at the mints to make the subdivisions of the tolá into ánás (sixteenths) and pá'ís, in lieu of máshas and ratis.

Máshas, ratís, and dháns, are used chiefly by native goldsmiths and jewellers. They are also employed in the native evaluation by assay of the precious metals; thus, '10 máshas fine' signifies 10-12ths pure, and corresponds to '10oz. touch' of the English assay report of silver. There is a closer accordance with the English gold assay scale, inasmuch as the 96 ratís in a tolá exactly represent the 96 carat grains in the gold assay pound, and the dhán, the quarter-grain. As it is sometimes necessary to convert the assay report from one denomination into the other,' the following comparative table is here inserted.

Table of the Correspondence of English and Indian Assay Weights.

ENGTIER	ARRAY.	HINDU ASSAY FOR	ENGLISH	ASSAT.	RINDO	REGLISH	ASSAT.	BINDU
Silver.	Gold.	METALS.	Silver.	Gold.	ARSAY.	Silver.	GoM.	1981Y.
Touch.	Touch,	Pine.	Touch.	Touch.	Pine.	Touch.	Touch.	Pine.
or. dets. 12 0 11 17½ 11 15 11 12½ 11 10 11 7½ 11 5 11 2½	et. grv. 24 0 23 3 23 2 23 1 23 0 22 3 22 2 22 1	msh. rst. 12 0 11 7 11 6 11 5 11 4 11 3 11 2	os. dwta. 11 0 10 17½ 10 15 10 12½ 10 10 10 7½ 10 5 10 2½	et. ers. 22 0 21 3 21 2 21 1 21 0 20 3 20 2 20 1	hish. rat, 11 0 10 7 10 6 10 5 10 4 10 3 10 2 10 1	oz. dwis. 10 0 9 17 5 9 15 9 12 5 9 10 9 7 7 9 9 6 9 2 1	ct. grs. 20 0 19 3 19 2 19 1 19 0 18 3 18 2 18 1	msh. rat. 10 0 9 7 9 6 9 5 9 4 9 3 9 2

(To find the corresponding decimal assay, see the tables in pages 10, 11. The English assay report is generally 'so much worse (or better)' than standard, but the touck is easily known therefrom, the standard being 11 oz. for silver and 22 carats for gold; or 11 mashas, Hindu reckening.)

The correspondence of the Indian system of weights with the troy weight of England, and with the 'systeme métricale' of France, may be best shown by a table. The coincidence of the former is perfect: in the latter, the masha nearly accords with the gramme, and the ser with the kilogramme.

BRITISH INDIAN WRIGHTS.	E	Nerrisi	TRO	A MES	GHIM.	FRE	NOW WEIGHTS.
One Man	_	lbs. 100	0 .	duta.	0	=	37320.182
One Ser One Chhatāk	=	0	6	17	12	=	933.005 58.310
One Tola	=	0	0	7	12	-	11,662
One Masha		0	0	0	1.875	-	0.972

<sup>&</sup>lt;sup>t</sup> Especially in the translation of Regulations concerning the mints, the English expressions being unintelligible without explanation.

For the conversion of English troy weights into those of India, the following scale will suffice, since the simplicity of their relation renders a more detailed table unnecessary.

Lb. Troy.	Oz.	Dwt.	Grain.		Tolts and Docimnia.
1	12	240	5760	-	32.000
	1	20	480	=	2,6666 etc.
		1	24	_	0.1333 etc.
			1	-	0.0055 etc.

The accordance of the man weight with the 100lbs, troy of England affords a ready means of ascertaining its relative value in the standards of other countries employed in weighing the precious metals, since tables of the latter are generally expressed in lbs, troy. The following are a few of the valuations for the principal weights of Europe, etc. extracted from Kelly's 'Cambist,' p. 222. The weights in troy grains have been converted into tolás by dividing them by 180.

Table of Comparison of the Told and Man with the Gold and Silver, or Troy, weights of other countries.

PLACE AND DENOMINATION.	Weight of a single B, mark, etc. in tolse.	Number equal to 1 man, or 10 fis. 10y.
ALEPPO Metical	0.405	7890.410
Baska Miscal	0.450	8000,000
Cairo Rottolo	36,965	86.564
CALICUT Miscal	0.383	8347.826
CHINA Tael	3.221	993.446
CONSTANTINOPLE Chequee	27.538	116,199
Damascus, Ounce	2,600	1252.173
DENNARK Mark	20.183	158,546
ENGLAND Pound	32.000	100.000
France Kilogramme	86.745	37.320
Germany Cologno mark	20.044	159.645
HOLLAND Mark	21,100	151,658
ITALY Florence and Leghorn libra	29.111	109.923
Mocna Vakia	2,655	1205.020
PEGU Tical	1.138	2427.307
Pensia Dirham	0.839	3812.297
Portugal Mark	19,675	162,642
PRUSSIA Mark	20.050	159.600
ROMB Libbra	29,077	110.049
Russia Pound	35.102	91.161
SPAIN Mark	19,725	162,230
Venice Mark	20.452	156,457
VIENNA Mark	24.072	132,933

The principal dealings in bullion being with England, where it is weighed by the pound troy, while in India it is received by the tolá, a simple table for the mutual conversion of these two weights (without regard to mans and sers) may be useful: it needs no explanation.

Table for the mutual conversion of Tolás and Pounds Troy.

TOLA	s into Pouxes T	nox and Dr	ECIMALS.	,	tuor Poun	re into Toux	R.
Tolin.	Poun4s,	Tolin.	Pormils,	Pounds.	Tolis.	Pounds.	Toline
1000	31.2500	550	17.1875	100	3200	55	1760
990	30.9375	540	16.8750	99	3168	51	1728
980	30.6250	530	16.5625	98	3136	53	1690
970	30.3125	520	16.2500	97	3101	52	1664
960	30.0000	510	15.9375	96	3072	51	1632
950	29,6875	500	15.6250	9.5	3040	50	1600
940	29.3750	490	15.3125	94	3008	49	1568
930	29.0625	480	15.0000	93	2976	48	1536
920	28.7500	470	14.6875	92	2944	47	1504
910	28,4375	460	14.3750	91	2912	46	1472
900	28.1250	450	14.0625	90	2880	4.5	1440
890	27.8125	440	13,7500	89	2848	44	1408
880	27.5000	430	13.4375	88	2816	43	1376
870	27.1875	420	13.1250	87	2784	42	1344
860	26.8750	410	12.8125	86	2752	41	1312
8.50	26.5625	400	12,5000	85	2720	10	1280
840	26.2500	390	12.1875	84	2688	39	1248
830	25.9375	380	11.8750	83	2656	38	1216
820	25.6250	370	11.5625	82	2624	37	1184
810	25.3125	360	11.2500	81	2592	36	1152
800	25.0000	350	10,9375	80	2560	35	1120
790	24.6875	340	10.6250	79	2528	34	1088
780	24.3750	330	10.3125	78	2196	33	1056
770	24.0625	320	10,0000	77	2464	32	1024
760	23,7500	310	9.6875	70	2432	31	992
750	23.4375	300	9,3750	75	2100	30	960
740	23.1250	290	9,0625	74	2368	29	928
730	22.8125	280	8,7500	73	2336	28	896
720	22,5000	270	8,4375	72	2304	27	804
710	22.1875	260	8.1250	71	2272	26	832
700	21.8750	250	7.8125	70	2240	2.5	800
690	21,5625	240	7.5000	69	2208	24	768
680	21,4500	230	7.1875	68	2176	23	736
670	20.9375	220	6.8750	67	2144	22	704
660	20.6250	210	6,5625	66	2112	21	672
650	20.3125	200	6,2500	65	2080	20	640
640	20,0000	190	5.9375	64	2048	19	608
630	19.6875	180	5.0250	63	2016	18	576
620	19,3750	170	5.3125	62	1984	17	544
610	19.0625	160	5,0000	61	1952	16	512
600	18.7500	150	4.6875	60	1920	15	480
590	18,4375	140	4.3750	59	1888	14	448
580	18.1250	130	4.0625	58	1856	13	416
570	17.8125	120	3.7500	57	1824	12	384
560	17.5000	100	3.4375	56	1792	ii	352

To convert the decimals of a lb. into ounces and duts., and vice versa.

12 oz.	-1.000	6 oz.	-0.500	20 dwt	= 0.083	9 dwt	-0.037
11	.916	5	.416	18	.075	7	.029
10	.833	4	.333	16	.066	5	.020
9	.750	3	.250	14	.058	3	.012
8	.666	2	.166	12	.051	2	.008
7	.583	1	.083	10	110,	1	.004
		44 41.00	and the second second	4 3 4 4 4			

<sup>1</sup> ounce troy = 2.667 tolās, or 2 tolās 8 māshas,  $7\frac{1}{2}$  dwts. , = 1 tolā, and 1 dwt, = 1.33 tolā.

The same degree of correspondence cannot be expected between the Indian weights and the avoirdupois weights of England; but, as the latter are employed in all the transactions of commerce, excepting those of bullion and some other triffing articles, it becomes necessary to give tables for their conversion at greater length. In these, as on former occasions, the system of expressing fractions in decimals has been preferred, from the very great facility it affords in taking out the equivalents of quantities to which the tables do not extend. Decimal numeration is too well understood in the present day to require explanation, but one example may be advantageously given as applying to all the tables hereafter constructed on the same principle:

Required the equivalent of 57,353 mans, 35 sers, 6 chhatáks, in avoirdupois pounds.

Taking the numbers opposite to 57, 35, and 30 respectively, and removing the decimal point,—in the first three places, to the right hand;—in the second, one place to the right;—and in the third, one place to the left, we have

57,000 mans = 4690286.
350 = 38800.
3 = 246.857
37 sers = 76.114
6 chhats. = .771

lbs. 4719409.742 = 12 ounces nearly.

Since 35 sers are exactly equal to 72 pounds avoirdupois, the following simple and accurate rules for their mutual conversion, will be found equally convenient with the table.

Rule I .- To convert Indian weight into avoirdupois weight.

- Multiply the weight in sers by 72, and divide by 35: the result will be the weight in lbs. av.
- Or, multiply the weight in mans by 36, and divide by 49: the result will be the weight in cwt. av.

Rule II.—To convert avoirdupois weight into Indian weight.

- Multiply the weight in lbs. av. by 35, and divide by 72; the result will be the weight in sers.
- Or, multiply the weight in cwts. by 49, and divide by 36: the result will be the weight in mans, or maunds.

One ton = 27.222 mans, or  $27\frac{1}{4}$  mans nearly.

One man = 823lbs. av. exactly.

<sup>1</sup> For facility of recollection this rule may be expressed in arithmetical poetry thus:

Of one hundred weight should you incline
A sum in Indian wass to fix;

First multiply by forty-nine,
And then divide by thirty-six.

Table for converting New Bazar Mans (or Maunds), Sers, and Chhatáks, into Avoirdupois Pounds, and Decimals.

Mans,	Pounds, Avoir.	Mann.	Pounds, Avoir,	Sers.	Pounds, Av.	drau	of os, and n in dent- s of lb.
100	8228.571	55	4525,714	sers 40	82.286	0s. 16 =	= 1.0000
99	8146,285	54	4443.429	39	80.228	151	.9687
98	8064,000	53	4361.143	38	78.171	15	.9375
97	7981.714	52	4278.857	37	76.114	144	.9063
96	7899.428	61	4196.572	36	74.057	14	.8750
95	7817.142	50	4114.286	35	72.000	134	.8438
94	7734,857	49	4032,000	34	69,943	13	.8126
93	7652,571	48	3949.715	33	67.886	124	.7813
92	7570.285	47	3867 429	32	65.829	12	.7500
91	7488,000	46	3785,143	31	63,771	111	.7188
90	7405,714	45	3702.857	30	61.714	11	.6874
89	7323.428	44	3620,572	29	59.657	104	.6563
88	7241.143	43	3538.286	28	57,600	10	.6250
87	7158.857	42	3456,000	JO 27	55,543	98	,5938
86	7076.571	410	3373,715	26	53,486	9"	.6625
85	6994.285	40	3291.429	2.5	61:429	81	,5313
84	6912.000	39	3209.143	24	49.371	8	.5000
83	6829.714	38	3126,858	2.3	47,314	75	4688
82	6747.428	37	3044.572	2:2	45.257	7	.4376
81	6665.143	36	2962.286	21	43.200	61	.4063
80	6582,857	35	2880,000	20	41,143	6	.3750
79	6500.571	34	2797.715	19	39.086	51	.3438
78	6418.286	33	2715.429	18	37.029	5	.3126
77	6336.000	32	2633,143	17	34.971	45	.2813
76	6253.714	31	2550,858	16	32.914	4	.2500
75	6171.428	30	2468.572	15	30.857	31	.2188
74	6089,143	29	2386.286	14	28,800	3	.1876
73	6066,857	28	2304.000	13	26.743	21	.1563
72	6924.571	27	2221.715	12	24.686	2	.1250
71	5842.286	26	2139,429	11	22,628	14	.0938
70	5760.000	25	2057,143	10	20,571	1	.0625
69	5677,714	24	1974.858	. 0	18,514	15 drs.	=.0586
68	5595.429	23	1892.572	8	16.457	14	.0547
67	5513.143	22	1810,286	7	14.400	13	.0508
66	5430.857	21	1728,000	- 6	12.343	12	.0469
65	5348.571	20	1645.715	5	10.286	11	.0430
64	5266.286	19	1563,430	4	8.229	10	,0391
63	5184,000	18	1481.144	3	6,171	9	.0351
62	5101.714	17	1398,858	2	4.114	8	.0312
61	5019,429	16	1316,573	1	2,057	7	.0274
60	4937.143	15	1234,287	Chimt. 8	1.028	6	.0234
59	4854 857	14	1152.000	4	0.514	5	.0194
58	4772.572	13	1669.715	3	0.386	4	.0156
57	4690.286	12	987.430	2	0.257	3	.0117
56	4608,000	11	905.144	1	0.129	2	.0078

(The last column serves for the conversion of the decimals of a pound avoirdupois into ounces and drams. It will be found useful also with the two following Tables.)

Table for the conversion of Mans (or Maunds) into Tons, Hundredweights, and Pounds.

Mans,	Tona.	owte.	Iba.	Manu.	Tons.	cwia.	libs.
100000	3673	9	43.00	100	3	13	52.57
10000	367	6	105.10	90	3	6	13.72
9000	330	12	27.39	80	2	18	86,86
8000	293	17	61.68	70	2	11	48.00
7000	257	2	95.97	60	2	4	9.14
6000	220	8	18.26	50	1	16	82.29
5000	183	13	52.55	40	1	9	43.43
4000	146	18	86.84	30	1	2	4.57
3000	110	4	9.13	20	0	14	77.71
2000	73	9	43.42	10	0	7	38.85
1000	36	14	77.71	9	0	6	68.57
900	33	1	25.13	8 7	0	5	98,28
800	29	7	84,56	7	0	5	16.00
700	26	14	31.99	6	0	4	42,11
600	22	0	91.42	- 5	0	3	75.42
500	18	7.	38.85	2/7/4	0	2	105.14
400	14	13	98.28	(3)	0	2	21.65
300	- 11	0	45.71	01 2	0	1	52.57
200	1667	6	105.14	E T 5	0	0	82,28

TABLE for converting Avoirdupois weights into British Indian weights.

Tous.	Bázic	Mag.	nds.	Cwta,	Bin	Mana for Mo	or unës.	Lbs.	Bás	factor to Ma	or unde,
100	mns. 2722	ar. 10	chhat,	19	mns. 25	87. 34	chhat.	100	mns.	ar.	ethiat 92
90	2450	1	9	18	24	20	01	90	1	3	12
80	2177	32	8	17	23	5	9 <u>T</u>	80	0	38	14
70	1905	23	7	16	21	31	2	70	0	34	0
60	1633	14	6	15	20	16	10%	60	0	29	25
50	1361	. 5	5	14	19	2	32	50	0	24	42
40	1088	36	4	13	17	27	128	40	0	19	7
30	816	27	3	12	16	13	51	30	0	14	94
20	544	18	2	11	14	38	142	20	0	9	115
10	272	9	1	10	13	24	77	10	0	4	132
9	245	. 0	21	9	12	10	0.1	9	0	4	6
8	217	31	4	8	10	35	9	8	0	3	143
7	190	22	51	7	. 9	21	15	7	0	3	6
6	163	13	7	6	8	6	10%	6	0	2	145
5	136	4	8	5	6	32	35	5	0	2	7
4	108	35	10	4	5	17	12%	4 3	0	1	154
3	81	26	115	3	4	3	5%	3	0	1	71
3 2 1	54	17	13	2	2	28	141	2	0	0	151
1	27	8	144	1	1	14	77	1	0	0	75

The British Indian system of weights having been ordered by Regulation VII. of 1833, to supersede the bázár weights previously used, (of which the unit was the old Murshidábád rupee weight of 179.666 troy grains, called the sikká weight), in all Government transactions, a corresponding adjustment was made of all the weights in use at the several Government offices of the metropolis—the custom-house, the mint, the treasury, the bank, and the police; and sets of standard ser and tolá weights of brass were ordered to be prepared at the mint for distribution to all the collectors' offices of the Bengal presidency.

The Regulation in question expressly avoided enforcing the change by any penal enactment, trusting that the sense of public convenience would quickly ensure its substitution for the irregular system now prevalent; and directing only that the verification and adjustment of all weights at the Calcutta and Ságar assay offices, should be made for the future in accordance with the new scale.

In the ordinary dealings of commerce, the difference between the bázár weights and the new weights is not recognizable: indeed the error of single large weights is generally found to exceed the amount of modification now introduced: no inconvenience therefore remains from the still general use of the old bázár weights, while the principal European mercantile establishments of the town, as well as all the native bullion merchants, have already had their weights adjusted to the new system.

Where it may be required, however, to know the precise difference between the old and new system, recourse may be had to the following table. The new man will be seen to be one chhaták and a quarter, nearly, heavier than the old bázár man: which would induce an increase in the price of articles to the trifling extent of one-fifth per cent, or three ánás in a hundred rupees.

Table for the mutual conversion of Tolás and old Sikká Weight
of Bengal.

(	MA Sikká Weig	ht into Tolis		Tobia into Sikka Weight,					
OM Sikka Weight.	Tobie,	Old Sikka Weight.	Tolds.	Tolia.	Old Saka Weight.	Tolis.	OM Sikki Weight.		
3200	3194.060	800	798.515	3200	3205.948	800	801.487		
1600	1597.030	700	698.700	1600	1602.974	700	701,301		
1500	1497.216	600	598.886	1500	1502.789	600	601.115		
1400	1397.401	500	499.072	1400	1402.604	500	500.929		
1300	1297.587	400	399.257	1300	1302.419	400	400.734		
1200	1197.772	300	299,443	1200	1202.220	300	300.557		
1100	1097.958	200	199.628	1100	1102.044	200	200.371		
1000	998.144	100	99.814	1000	1001.859	100	100.185		
900	898,329	1 áná	0.062	900	901.673	I másha.	0.084		

This table will answer equally well for the conversion of old bázár mans or sers into new mans and sers, the ratio being the same, namely, as 180: 179.666.

### PACTORY WEIGHTS.

There is another species of weight employed in some branches of the commerce of Calcutta which it will be necessary to expel before uniformity can be established. This is the system of factory weights originally used by 'the English factory at Bengal,' and now generally retained in the commercial transactions of the Government, although long since superseded in their customs and revenue business by the bázár weights.

It would appear to have been adopted in 1787 to save calculation in the home remittances of produce, three factory mans being almost exactly equal to two hundred-weight avoirdupois.

A moment's inspection of the Calcutta price-current will be sufficient to prove the great inconvenience which the retention of the twofold system must cause. Some articles are quoted at 'sikká rupees per bázár man,' others at 'sikká rupees per factory man,' and others again at 'current rupees per factory man,' the current rupee being an imaginary money, of which 116 are assumed as equal to 100 sikkás?

To increase the perplexity, the same article is often estimated in a different scale as it comes from different places; thus, Radnagor and Bauleah silk are sold per bázár ser: while Kasimbázár and Gonatea silk are sold per factory ser. Tin, iron, verdigris, Japan and English copper, per 'sikká rupees and factory man: '—steel, zinc, lead, mercury, and South American copper, per current rupees and factory man!—Gum-Benjamin is sold by factory, all other gums by bázár, weight:—stick-lac by the former, but shell-lac and lac dye by the latter!

Many more examples might be furnished of similar inconsistency. Saltpetre, indigo, silk the produce of the Straits, and metals, are the principal articles sold by the factory maund; while grain, sugar, cotton, most articles of food, and all of retail bázár consumption, are sold by the bázár weight.

The old bázár maund was defined to be ten per cent. heavier than the factory maund; therefore the latter will be equal to 74 lbs. 10 oz. 10.666 dr. avoirdupois; the ser to 1 lb. 33 oz. 13.866 dr.; and the chhaták to 1 oz. 13.366 dr.

From the simple relation of the factory to the bázár weight, there can be no difficulty whatever in substituting the latter in its place, in the valuation of such articles of commerce as are still estimated by the former:—nothing more being necessary than to add ten per cent. to the prices formerly quoted per factory maund. Thus, indigo sold at 100

or 200 rupees per factory maund, will now be 110 or 220 rupees per man, and so of other goods. As such goods are invariably weighed at the custom-house on the new system, and the duty or drawback calculated accordingly, it is only a source of perplexity to buy and sell by the obsolete weight; and to retain two species of weights in a warehouse, must obviously open the door to continual mistakes, if not occasionally even to fraudulent interchange.

The following Table gives the conversion of factory weights into new mans accurately, but in ordinary practice the following simple rules will suffice.

- I. Deduct one-cleventh from the weight in factory maunds, sers, or chhatáks; the result will be the weight in British Indian (or bázár) mans, sers, and chhatáks.
- II. Add ten per cent. to the price per factory maund, etc., the result will be the price per British Indian (or bázár) man, etc.

The reverse table has not been calculated, because, it is to be hoped, it will never be required.

Table for the conversion of Bengal Factory weights into new standard mans and decimals.

Paolocy weights, mans.	New man,	Factory weights.	New man.
10000	9074.400	mans, 5	4.537
1000	907.440	4	3.630
100	90.744	3	2.722
90	81.669	2	1.815
80	72.595	1	0.907
70	63,520	sers. 20	0.453
60	54.446	10	0.227
50	45.372	5	0.113
40	36.297	4	0.091
30	27.223	3	0.068
20	18.149	2	0.045
10	9.074	1	0.023
9	8.167	chhatáks. 8	0.011
8	7.259	4	0.005
7	6.352	2	0.003
6	5.444	1	0.001

(To reduce the decimals into sere and hundrefiths, multiply by 4, and more the decimal point one place to the right: to convert the hundredths into chhataka, multiply by 10 and divide by 100.)

# CURRENT BUPEE PRICES.

By a fortunate chance we are able to meet the apparently perplexing practice of estimating the values of some articles in 'current rupees per factory weight,' with a very simple method of expressing their equivalents according to the new system, so as to obviate any supposed difficulty in cradicating long established habits: for 100 current rupees being equal to  $\frac{1.0000}{1.00}$  or 86.207 sikká rupees, and one factory man being equal to .90744 man, as above stated; the ratio of the two modes of valuation will be as 100 to 86.207  $\div$  .90744, or 95 exactly. Hence may be deduced the following simple rules:—

- I. Deduct five per cent. from the price or value quoted in 'current rupees per factory weight,' and the result will be its equivalent in sikká rupees per bázár (or new) weight.'
- II. Add one and a third per cent. to the price or value quoted in 'current rupees per factory weight,' and the result will be its equivalent in Farrukhábád, Madras, or Bombay rupees, per bázár (or new) weight.

The following table is constructed on this principle, and is applicable to mans, sers, and chhatáks, as the case may be:

Table for the conversion of values quoted in current rupees per factory maund, ser, or chhaták into their equivalents in sikká or Farrukhábád rupees per new standard (or bázár) weights.

Current rapees per factory man, etc.	Sikkš rapees per new man, etc.	Pd. Mad. Born. Es. per new mah, etc.	Current ands per factory man, ser, etc.	Decimals of wikks re. per new man, etc.	Decimals of Fd. Mad. Bom. rs. pe new man, ser, etc
1000	950.	1013.333	15	0,891	0,950
100	95.	101.333	14	.831	.886
90	85.5	91.200	13	.772	.823
80	76.	81.066	12	.7125	.760
70	66.5	70.933	- 11	.653	.696
60	57.	60.800	10	.594	.633
50	47.5	50.666	9	.534	.570
40	38.	40.533	8	-475	.506
30	28.5	30.400	7	.416	.443
20	19.	20.266	6	.356	.380
10	9.5	10.133	5	.297	.316
5	4.75	5.066	4	.2375	,253
3	2,85	3.040	3	.178	,190
2	1.90	2.026	2	.119	.126
1	0.95	1.013	1	.059	.063

(To reduce the decimals into ansa and paris, see Table p. 12.)

The only other denomination used extensively at the Presidency is the salt man, which is  $2\frac{1}{3}$  per cent. heavier than the bázár man, having 82 tolás to the ser. It is much to be regretted that this absurd weight should not only have been retained, but that after the promulgation of the new regulation, the Government ordered a completely new and expensive series of brass weights to be made up for the Salt Board, at considerable cost, on the old system! It would of course have been just as simple to order the weighments of salt to be made with the new man, and  $2\frac{1}{3}$  per cent. surplus to be levied on the gross amount to cover wastage; the weights would then have been convertible to general use, whereas now they are confined to one specific purpose.

In the Madras and Bombay Presidencies, the weights of commerce have been long since made to conform with the avoirdupois system, by assuming the nearest approximation in pounds to the local man, and adjusting the latter to it. Thus at Madras the 'man' is assumed as equal to 25 lbs. avoirdupois: and at Bombay the more convenient equivalent of 28 lbs., or one quarter cwt., has been adopted for the standard man. As these weights (especially the latter) are convenient by their direct relation to the commercial unit of England, it is neither to be expected nor to be wished that they should be exchanged for the weights of Bengal. Indeed, it should be remembered, that the use of purely English weights, even in Calcutta counting-houses, can lead to no confusion:—it is the introduction of a fictitious native weight, like the factory man, that is objectionable, as being neither Indian nor English.

The ser at Madras contains 8 paláms¹ of 10 pagodas each, so that, like that of Bengal, it has the the sub-division into 80 parts. In the Malabar system, also used at Madras, 2½ paláms (fanams) make a ser, and the tolá occupies the place of the man; it is equal to 23.192 lbs.

The ser at Bombay is divided into 30 pá'ís, or 72 tánks, or 72 troy grains each.

The conversion of the Madras and Bombay mans into the bázár man of Bengal requires another table. A practical estimate of their relative values may, however, be held in the memory by means of the following simple ratios:—

Ten Madras mans = 3 mans, 12 sers, Bengal, nearly.

Three Bombay mans = 1 man, 1 ser, nearly.

The exact ratios between the cwt. and the man given in page 100, are of course applicable to the derivatives of the avoirdupois pound in the other Presidencies.<sup>3</sup>

- 1 [Generally, though corruptly, written 'pollam or pullam.' TAM. from s. 44.]
- 2 [s. da fank, MAR. da, dia fank or fank.]
- <sup>5</sup> The readiest practical method of reducing the Indian to the English system, where the utmost accuracy is not required, is derived from the equation, 300 mans = 11 tons. Hence we have the following rules in addition to those given in page 100:—
- III. Add a tenth to a sum of mans, and divide by 30 results—the weight in tons.
  IV. Multiply a sum in tons by 30, and deduct an eleventh from the product:
  results—its value in mans.
- results—its value in mans.

  V. Deduct one-third from a weight in mans, and increase the remainder by one-tenth: results—the weight in cwts. nearly.
- VI. Add one-half to a given weight in cwts., and diminish the sum by one eleventh: results—the equivalent in mans, nearly.

For the more exact conversion of one denomination into the other, the following table may be consulted:

Table for the mutual Conversion of Bengal, Madras, and Bombay mans.

Bengal mana.	Madres mens.	Bombay mans.	Madras mans.	Bengsi mana.	Bembay mans,	Bengal mans
1000	3291.428	2938.775	1000	303.820	1000	340.278
100	329.143	293.877	100	30.382	100	34.028
90	296.229	264.492	90	27.344	90	30.625
80	263.315	235.104	80	24.306	80	27.222
70	230.401	205.716	70	21.268	70	23.819
60	197.487	176.328	60	18.230	60	20.416
50	164.571	146.938	50	15.191	50	17.014
40	131.656	117.552	40	12.152	40	13.612
30	98.742	88.164	30	9.114	30	10.209
20	65.828	58.775	20	6.076	20	6.806
10	32.914	29.388	10	3.038	10	3.403
1	3.291	2.939	1	0.304	1	0.340
sers, 30	2.469	2.203	sers, 30	0.228	sers, 30	0.255
20	1.646	1.469	20	0.152	20	0.170
10	0.823	0.734	10	0.076	10	0.085
5	0.411	0.367	- 5	0.038	5	0.042
4	0.329	0.294	4	0.030	4	0.034
3	0.240	0.220	0.00037	0.022	3	0.025
2	0.164	0.147	2	0.015	2	0.017
1	0.082	0.073	1	0.008	1	0.008

The next table will be found very convenient for reducing the decimals of mans in the foregoing, and upon all other occasions, into the ordinary divisions of the native weights, viz., sers and chhatáks.

Table for converting sers and chhatáks into decimals of a man, and vice versã.

		Declar	als for		Sora.	Decimals.
Chhtk.	0 ser.	1 ser.	2 sers.	3 sers.	330	Jacob Maria
0	.0000	.0250	.0500	.0750	4	.0000
0	.0016	.0266	.0516	.0766	8	.2000
2	.0031	.0281	.0531	.0781	12	.3000
3	.0047	.0297	.0547	.0797	16	-4000
4	.0062	,0312	.0562	.0812	20	.5000
5	.0078	.0328	.0578	.0828	24	.6000
6	.0094	.0344	.0594	.0844	28	.7000
	.0109	.0359	.0607	.0829	32	.8000
7 8	.0125	.0375	.0625	.0875	36	.9000
9	.0141	.0391	.0641	.0891	40	.10000
10	.0156	.0406	.0656	.0906		1
11	.0172	.0422	.0672	.0922		
12	.0187	.0437	.0687	.0937	The three	e last figures of ecarring in the
13	.0203	.0468	.0703	.0953	nume order	after every four
14	.0219	.0469	.0719	.0969	insert then	unmocessary to a at length.
15	.0234	.0484	.0734	.0984	- 52350000000	

### GENERAL TABLE OF INDIAN WEIGHTS.

However desirable it may be, in theory, to reduce the system of weights throughout the vast continent of India to order and uniformity; in practice, it is well known that insuperable difficulties oppose the execution of such a project: if ever effected, it can only be done in the gradual progress of time, by the spread of knowledge, and by the growing inter-communion of the multitudes engaged in the internal traffic of the country, who would by degrees feel the advantage of uniformity in their dealings.

It is a comparatively easy thing for a government, having the sole issue of coin within its own territories, to fix upon a convenient unit of value, and establish it to the supersession of former currencies; but the weights of a country do not so immediately come in contact with the ruling power (even though it have a commercial character itself:) not at least as regards the domestic or market weights, which are localised in a thousand distinct foci under as many modifications of prices, customs, and modes of calculation and sub-division.

It is but lately that the Legislature has attempted to equalise the weights of England, and then only by the retention of a double system. India does, however, in some respects, offer a better chance of success than the countries of Europe, where each locality has, by municipal laws, rendered permanent and cognate its own system, however differing from that of its neighbour. Here, all is vague—the standards of reference being in most cases the local rupes or copper coin, themselves subject to variation; or of modern introduction, and capable of equalisation.

Thus, throughout the Maráthí states, the ser is referred to the Puna or Ankusí rupee: in Gujarát, to the Baroch rupee: in Ajmír, to the Sálimsáhí; in Bengal, to the old Murshidábád rupee; all comparatively modern. In Madrus, the coin of that presidency, or of Mysore, or Pondicherry, are appealed to; but more generally the English avoirdupois unit has become familiarised, as has been already stated, by the adoption of 25 lbs., to represent the commercial 'man.'

By perseverance, therefore, in upholding one common system for the whole of British India, or at least for the Bengal presidency, a system founded on the previous habits and institutions of the country; by connecting it (as has been done) with a rupee of general, and to be hereafter exclusive, circulation; by restricting Government transactions to this system, and affording facilities of adjustment by depositing standard weights in public offices all over the country;—there is some reason to hope that, eventually, the incongruous mass now prevalent will gradually give place to the convenience of an universal and single species of weight.

There is another argument in favour of its feasibility, namely, that India does not, properly speaking, possess dry or liquid measures. Where these are employed, they depend upon, and in fact represent the ser or the man weight; the mention of measures has been accordingly omitted in the foregoing scheme for Bengal, leaving the value of any vessel of capacity to rest solely on the weight contained in it.

The mode in which this is effected for the 'dry measures' of South and West India is, by taking an equal mixture of the principal grains, and forming a vessel to hold a given weight thereof, so as to obtain an average measure. Sometimes salt is included among the ingredients.1 Trichinopoly is the only place where grain is said never to be sold by weight. The markál 2 and para 3 are the commonest measures; the latter is known throughout India; in Calcutta it is called 'ferrah,' and is used in measuring lime, etc. which is still recorded however in mans weight.

Of the origin or antiquity of the Indian weights it would be out of place here to institute an inquiry; the ancient metrology of the Hindús has been fully described by Mr. Colebrooke, in the 'Asiatic Researches,' As with the coins, so with the weights, Southern India retained most of the names and terms properly Hindú, pala, tulá, visa, bhárá, khárí? (? khandi), báha. Throughout the Moghul empire, on the contrary, the ser and man were predominant. The word 'man,' of Arabic or Hebrew origin," is used throughout Persia and Northern India; but, as might be expected, it represents very different values in different places: thus the man of Tabriz is only 61 lbs. avoir., while that of Palloda, in Ahmadnagar, is 1631 lbs.

It is probable that the ser, a Hindú weight (setak), was more uniform than the man, since it was founded upon the tolá (tolaká), which, with its subdivision, the wasa, must in very ancient times have been extensively known throughout commercial Asia. There can be little doubt that the 'tale or tael' and 'mace' of the Chinese are identical in origin. The variations of these weights may have been smaller, because their use was nearly confined to the precious metals and other

<sup>1 &</sup>quot;In Belary this is called the non-donium measurement; from the 'nine' sorts of grain used: rice, wheat, coolty, pasaloo, mernoomcoloo, oil seeds, Bengal grain, aunnomcoloo, and nooloo. In Darwar, they take, wheat, toor, hurbury, roelthee, moony, cored, juwarec, paddy, and mudkee."—Kelly's \* Metrology."

2 [ Properly Maraskid, from the Tamil.]

MAL. Para.]

क मार. व्हारीः] . पन म. पुन क तुला. धा. पुन मार. व्हासीः ويل क मार. व्हासीः

The Hebrew manch was equal to 13110 grs. tr. or 72,83 tolas. The Greek mina to 6244 grs. or 33.57 tolás.

articles of value; the ser is quoted at the highest denomination of this class of weights in one Sanskrit work. For gross produce a greater latitude was required, and larger sers were introduced to suit the value of each article; the weight apparently, rather than the price, being made variable: while to prevent the ambiguity which might follow, it became necessary to define the ser employed as of 30, 40, 60, 72, 80, 90, or even as far as 120 tolás; and probably when the current coin began to vary from the original tolá, the mention of this weight became obsolete, and reference was made direct to the rupees of the local currency. It is to meet this mode of expression that, in the following table, the value of every ser has been given in the standard tolá of 180 grains.

The man of India may, as a genus, be divided into four different species: 1. That of Bengal, containing 40 sers, and averaging about 80 lbs. avoir. 2. That of Central India (Málwá, Ajmír, etc.,) generally equal to 40 lbs. avoir. and containing 20 sers, so that the ser of this large portion of the continent assimilates to that of Bengal. 3. The man of Gujarát and Bombay, equal to ½ cwt. or 28 lbs. and divided into 40 sers of a smaller grade. 4. The man of Southern India, fixed by the Madras Government at 25 lbs avoir. There are however many other varieties of mans, from 15 to 64 sers in weight, which it is unnecessary to particularise.

Abu'l-Fazl defines the man of Akbar's reign to be 40 sers of 30 dáms; each dám being five tánks. The tánk is in another place described as 24 ratís: the másha of eight ratís has been assumed, from the weight of Akbar's coins, to be 15.5 grs. troy. This would make the emperor's man—34 \(\frac{3}{4}\) lbs. av., agreeing pretty well with that of Central and Western India. The tánk, as now existing in Bombay, is 72 grains; in Dharwár it is 50 grains; in Ahmadnagar, 268 grains. Its present weight consequently affords no clue for the verification of the above estimate, however desirable it may be to determine the point. In one part of the 'Ayín-i Akbarí,' the dám is called 20 máshas, 7 ratís, which would increase the man to about 47 lbs. In the absence of better evidence, it may be safe to reckon it in round terms at one-half of our present standard man.

## ORIGIN OF THE PRESENT TABLE OF INDIAN WEIGHTS.

In 1821, the Court of Directors called upon their commercial agents, collectors of customs, and other public officers of the three Presidencies, to procure and forward to England accurate counterparts of the standard weights and measures in use throughout their territories in the East. The order was promptly obeyed, and the required models sent home, with certificates and explanations. The packages as they arrived were placed under charge of Dr Kelly, who was assisted in his examination and comparison of the weights by Mr. Bingley, Assaymaster, and of the measures by Mr. Troughton, both of whom had zealously co-operated in comparing the standards sent to the English Government from other parts of the world.

The dispatches accompanying the standards from India contained full information on the money and trade, as well as on the metrology of most places: this is embodied at length in the supplement to Kelly's 'Cambist,' whence it was subsequently collected in an octavo volume, entitled Kelly's 'Oriental Metrology.'

It is from these sources that the accompanying table has been drawn up, exhibiting in an abridged form the principal commercial weights of India and Asia. Most of the subdivisions peculiar to each place have been necessarily omitted for want of space, but, where possible, the formation of the ser, etc., from the local unit is mentioned. It may be generally assumed that the wan system follows the common scale, viz.:

16 chhatáks = 1 ser.

1 ser. 40 sers — 1 man.

20 mans - 1 khandí i or mání.

The use of a five ser weight also universally prevails under the name of Panserí, dharí, or vísa. The dharí from its name, however, seems to be properly a measure, and accordingly, while in Málwá it is equal to 5 sers, in other places it is found of 4,  $4\frac{1}{3}$ ,  $5\frac{3}{4}$ , 10, 11, and 12 sers. The terms adholá, adheli, half, páo, powah, quarter, adhpáo half-quarter, frequently occur: they explain themselves.

The only novelty in the present table is the insertion of the two last columns, expressing the equivalents of the local weights in the standard man and tolá of the British Indian system. The column containing their values in avoirdupois pounds, ounces, and drams is according to the London determinations of Kelly.

Where the ser only of any place is mentioned in the first columns, the value of the man of the same place, expressed in parts of the standard man, is inclosed in parentheses to prevent mistakes: it may be remarked that the ratio of the man will answer equally well for the

<sup>1 [</sup> From s. 咽咽 khands: it is commonly written 'candy.']

<sup>2</sup> Written punchserree, puncheer, and punchaecer in KELLY.

<sup>3 [</sup>H. دهرای dhari.] Written dhuree, dhurra, dhuddee, dudda, dhadium, in Kelly.

<sup>\*</sup> Written vis, viss, visay, vesey, biss, in Kelly.

پاو · ۱۱ ادهیلی ۱۱ ه

ser, it being understood that the subdivision into 40 sers holds for the mans of the two places compared. To reduce any local weight into the standard denomination, or into the bazár man of Calcutta, nothing more is necessary than to multiply by the number in the last column, and convert the decimals into sers, if so required, by means of the second table in page 108.

The column of 'tolás per ser' will best express to a native the value of the weights of any particular locality; being the customary mode of estimation throughout the country.

In expressing the dimensions of the markál, the parra, and a few other dry or liquid measures; sometimes gallons and sometimes cubic inches have been introduced by Kelly. It may be convenient, therefore, to explain that, by the enactment of the 1st January, 1826, one imperial measure was established as a substitute for the variable wine, ale, and corn gallons of England, with their multiples and divisions.

This imperial gallon was made to contain 10 lbs. avoirdupois weight of distilled water, weighed in air at the temperature of 62° Far., the barometer standing at 30 inches. It has a capacity, therefore, of 277.274 cubic inches. Some of the most useful derivatives of this unit are here subjoined for the sake of reference.

Imperial dry and liquid measures.		Cubic con-	Avoirdupois weight.	Indian weights		
512 = 28	32 = 8 56 = 64	- 8 -		. 69.318 . 277.274 . 1.284 c. . 10,269	2 Ibs.8 ,, 10 Ibs.	

The old wine gallon contained 231 cub. inches; the ale gallon 282 c. i., and the corn gallon 268.8 c. i.; whence are obtained the following multipliers to convert them into imperial measure, viz., .833, 1.017 and .969 respectively.

It will be remarked that the gallon nearly corresponds with the panseri or dhari of the Indian corn measures, while the bushel bears the same proximity to the man weight. Standards of the bushel, gallon, quart, and pint, are deposited in the Assay-offices of the three Presidencies. The following is the scale of measures in use at Madras:-

```
cub. inches,

1 walak, ^1 = 11.719.

8 walaks, = 1 padi, = 93.752.

8 padis ^2 = 1 markál, ^3 = .750 = 27 lbs. 2 oz. 2 dr. water.

5 markáls, = 1 parra, = 3,750,

400 parras ^4 = 1 garce ^5 = 300,000.
```

The particulars of the Dry Measure of Ceylon are thus given in the 'Oriental Metrology.'

```
inch.
                              gallens.
                                                     inch.
 4 cutchundoos, = 1 ser,
                                  0,24 == 4.35 diam. + 4.35.
              = 1 coornly, =
                                 1.15
              = 1 markál, =
2.5 goornies,
                                 2.88
                                  5.76 = cube of 11 56 inches.
 2 markáls,
                          -
             = 1 parra
 8 parras,
              = 1 amonam, = 46.08 = 5\frac{1}{2} bushels.
92 amonams,
            == 1 lnst,
                           -
                                  432 - 63 quarters.
```

Thus it will be seen that there is no fixed rule as to the subdivisions and multiples of the parra or markál.

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י (באב'), vulgarly, Olluck.] 

[ TAM. Marakkil. M. ארבלול, markil.]

[ TAM. Parra: in page 110, note 3, incorrectly given us 'MAL. Para.']

[ Properly, TEL. Gárisa.]
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Table of the Commercial weights of India, and of other trading places in Asia, compared with the British-Indian Unit of weight, and with the Avoirdupois system of England.

Acheen in Suma- tru.	Tale, of 16 mace or 64 copangs.		Pole 1		No. of stand- ard Tolds per aer, etc.	Value of etc. in and deci
	Catty = 100 tales or 20 buncals. Bahar, of 200 catties.	grs. 1 2 423	48	dr. 2 141 0	7066 0.790 82.370	
Ahmadābād in Gujurāt.	Bamboo, liquid measure Telà = 32 válas, or 96 ratis. Ser (divided into § and § s)	grs. 10	10 93	10 440 143	3-3618/2013	
Ahmadnagar, in Aurangábád.	Man, of 40 sers	grs. 1 1 78	88. 15 15	8	1.047 76.562	0.9599
Amboyna, in the Molucius,	Man, do. = 12 pailis = 48 sers. Tale, of 16 mace	130 grs. 48 596	2 55.3 12	0 35 0	2.525	7.2521
Ahmode, Gujarāt.	Coyang, of rice (2,500 catties)  Man = 40 sers of 40 Baroch rs.  " for grain = 40 sers of 41 do.  " for cotton = 42 sers "	40	8 8 9 10	0 12 5 10	39.424 40.416	
Anjar, Bhuj.	, of 40 sets (of 36 dokarás)	27	3	8	26.464	40.000
Anjengo, Travan- core, M.	Kalsi, measure = 64 maps Khandi ( = 35 telong of 16lbs.)	560	0	0		6.8056
Arkat, Madras.	Man (20 to the khandi).  Pakka ser, <sup>2</sup> of 24 palams	1	-	0	70.486	
Aumodh, Kalpi.	Padi, for grain = 47 paliums, Ser, for cotton (see Kalpi)	1	8	0	137.930 58.336	(0.7292
Aurangabander in Sindh.	Tolá — 12 máshas, or 72 ratis Ser, of 64 pice.	grs. 18		13	78.993 1.041 72.461	***
Bagulkotá, M.	Man, of 40 sers Kachchaser, for groceries, oil, etc.	74	10	10 3½	20.	(0.9074
Bairseah, Málwá.	Pukka ser, for grain (116‡ c. i.) Ser, of 80 Bhopal rupees	3	14	11½ 13	133. 73.892	(0.9362
Banda, Moluccas.	Man, of 40 sers. Catty, of 52 lbs. Dutch Bahar, of 100 catties	610	1 0	12 10 0		0.9371 0.0740 7.4132
Bangalore, in Maisúr.	Soekal, of nutmegs, 28 catties Kachcha ser, of 24 rupecs man, of 40 sers Khandi, of 20 mans	170 0 25		13 0 0 0	24.504	2.0757 (0.3038) 0.3038
	Pakka ser, for grain, 84 rupees Khandi, of 20 kolagas, or 160 sers. Markal, of 9, 10, 12, etc., to 96 srs.	2	1	101	81.840	6.0764 (1.0230) 4.0926
in Borneo I.	Tale, of 16 mace	6.			3.413	
Bantam, Java.	Last, grain measure = 230 gunton Tale, for gold, musk, etc Bahar = 3 peculs of 100 catties.	grs. 10 396	10 55 0	0	5.866	37,2686 4,8124
Banswarra.	Coyang, of rice == 200 gantams. See Malwn. Man, of 39‡ sers, 2 pice	8681	ō.	0		0.4529

<sup>1</sup> Properly, TAM. Tuldm. 2 يكا سير pakkd ser, 'n full, complete, or correct ser.'

Piace.	Denomination of Weights.	Value in Eog- lish evoletie- pon weight.	No. of shord- and Tolks per see, etc.	Value of mone, etc. in Mana, and deticals,
Baroda, Baroch.	Ser, (pergunna,) 42 Bibûsâhi rs. Man, of 42 sers.	44 9 10	Totas, 41.186	Mana. 0.5420
Batavia, Java.	Khundi, of 20 mans.  The town ser has 41 Babas, rs. The Sesamum man is of 40 sers. Mark, of 9 reals.  Bahar—3 peculs, of 100 catties. Coyang, of rice=3,300 lbs. Dutch Timbung, of 5 peculs.  Kanne, liquid measure.	1 0 9.5 42 7 10.8 grs. 422 406 14 0 3581 0 0 678 2 0	40.286 2.344 	0.5162 4.9446 43.5190 61.7133
Baulezh, Bengal.	Ser, of 80 så, wt. or tolås	******	80.	1.0000
Belgaum, Maráthí country,	Ser, of 60 sá. wt. for liquids, etc. Ser, of 24 Shápári rs. (174 grs.) Man, of 44 sers.	0 9 8 26 3 15	23.091	0.7500
Bellary, Mad. Cod- ed Distr.	Tolá, of 30 Kántarái fanans Ser, of 21 Mysore rs. or tuláms Man, of 48 sers.	0 8 74 25 6 0	0.979 20.621	(0.2578) 0.3083
	Mau, for cotton (=1½ nagn.) Thimapoo, grain messure, 112 rs. Markot chunam do.=12 sers	0/200	112. 1008.	0.3199
Benáres,	Tolá, of 215 gmins troy	2 10 0	1,194 105, 103,	1.3125 1.2875
Benecolen, Sum.	Ser, of 96 så. wt	2 6 7	96. 3.940 56.666	1.2000
Betelfaki, Arab.	Frazil, of 10 mans	20 6 4	***	0.2477
Bhopál, Bhilsa. Birman Empire. Bombay,	Same as Malwa. See Rangoon. Tunk, of 24 ratis, (for pearls.)		0.400	9.9121
Money weight.	Tolh, (formerly 179 grs.) Ser, of 30 pice or 72 tanks	grs. 180	1.000	***
Commercial weight.	Man, of 40 sers Khandi, of 20 mans	28 0 0 560 0 0	27.222	0.3402 6.8056
Grain measure	Ser, of 2 tipprees	44 12 12.8	24.836	(0,3104) 0.5444 4.3553
Borneo.	Parra, salt mensure, 6 gallons Ser, for liquids, 60 Bom. rs See Banjar Massin.	1607.6 c. i.	60.	(0.7448)
Baroch, Gujackt.	Man,=40 sers, of 40 rs Man, for grain, 41 do	41 9 5	39,408	0.5052
Bushire, Persia. Başra, Arab.	Man, for cotton, 42 sers.  Man, Tubrizi=720 miskáls Man, of 24 vakias Sophi	116 0 0	29.888	0.5397 0.0934 1.4097
Baghdad, ,, Cachar, Tonquin. Culcutta,	Man=6 okas of 400 dirhams Tale, of 10 mace, or 1000 kis (See the foregoing pages.) Grain weights or measures are derived from the others, thus	grs, 590.75 lbs, 824	3,282 80.	1.0000
	1 kunki—5 chhatáks		25. 90. 400.	
Calicut, Melabar.	1 soalli=20 pallis=2½ mans. Ser, of 20 Súrat rs. Man, of 68 sers.	0 8 22	5400. 19.849	2.500 (0.2481) 0.4220

Place.	Denomination of Weights,	Value in Eng- lish projettu- pote weight,			No. of stand- ard Tohis per ser, its.	Value of mans, ore, its Muns and decimals,
Cambay, Malabar.	Same to Rome	Jb.	00.	âr.	Total.	Mans.
Canton. Cape Town. Carwar, Kanûra.	See China. 91 <sup>a</sup> Dutch—100 English weight Man, of 42 sers.	26	0	0		0.3159
Ceylon. Chanador, in Ab-	See Colombo. Ser, of 74 Ankusi rs. 10 mfs	1	13	8	71.702	(0.8963)
madnagar.	Ser of espacity=72 tanks, Man,=64 sers,	2	5 12	7	90.995	***
China.	Tale, see page 16 (=579,84 grs.) Cutty, of 16 tale.	0	1 5	51	3.221 51.586	1,8200
Cochin, Malabar.	Pecul, of 100 catties	27	5 2	11		1.4987 0.3301
Communicor, prysore	Man, of 40 sers	24 grs. 5	281	0	2.936 291.666	0.2923
Colachy, Travan- core.	Man=125 palâms, of 105 grs. Khandi, of 20 mans.	18	12	13		0.2284 4.5702
Colombo, Ceylon.	Khandi or Bahar	500 0256	8	0		6.0764 112.4921
	Markâl, dry meas = 10 sers, Parra, do.	galls.	5.7		***	
Comercolly, Bn.	Ser, for metals, 58 sa. wt (other sers of 60 and 78 do.)	1	7	9	58.	(0.7160)
Coolpahar, Calp. Cossimbázár, Bn.	Sers, of 76, 78, 80, and 82.10 to).	- 3	1	61	120.000	(1.5000)
Calpi, Agra.	Ser, for sugar, metals, grain Ser, for ght.	2	6	15	82.487 92.816	(1.0810) (1.1602)
Dharwar, Bom.	Ser, for cotton. Ser, for grain, wholesale.	2	7	5	95.552	(1.1944
Diarest, Boll.	Rachchá ser, of 72 tanks Pakká ser—116 Mad, rs. Dhara, liquid measure, 12 sers.	2	15	111	20.0 116.0	(0.2488)
Dewas, Malwa.	Ser, of 80 Ujjain rupees Man, of 64 sers	137	15	10	76.866	1.6712
Dindor, Ahmad.	Ser, of 76 Ankusi rs Ser, of capacity, 72 tanks	1 2	13	15 61	72.765	(0.9096
Dungurpur.	Man, of 64 sers. Ser, of 52 Salimani rs	1	10	0 0 0		(0.6090)
Dakhan, Puna.	Man, of 40 sers	1	15 10	14 81 45		0.6090
	Man, of 14 ,, for metals Pala of 124 ,, for iron, etc	27 236	9	94		0.3353 2.8749
Faifoe, Coc. Chi. Farrukhābād,	Man, of 48 , for grain Same as in China. Ser, wholesale 110 sh. wt.? 1	94	9	8		1,1494
Agra.	" retail 94 " ?	+++			94. 82.	(1.3625 (1.1750 (1.0250
Gerouli, Kalpi, Ghouhon, ,, Goa, Malabar.	Ser, for all purposes	1 2 129	15 2 5	04 0 5	75.460 82.638	(0.9431)
Gamron, Persia.	Khandi, of 20 mans	6	12 8	0	262.400 524,800	

<sup>&</sup>lt;sup>1</sup> These are marked in Kelly 11 and 14 Farrukhábád sikká weight, which must be a mistake for 110, and, probably, 94.

Place.	Denomination of Weights.	Tains in Kn- silsh arotelu- pots weight.	No. of stand- and Tolds per ser, etc.	Value of mana, ere, in Massa and decimally,
Gamron, Persin.	Man, Copra, for provisions	ib. es. ér. 7 12 0	Tolis.	Mans. 0.0942
Hansut Barôch.	Market ser, of 38 Baroach rs	7 12 0 0 15 7	37.521	(0.4690)
LLAMBUR Dell'Orini	man, of 40 sers	80 0 0	100000000000000000000000000000000000000	0.4690
	Oil man, of 42 sers	38 9 9 40 8 6	***	0.4925
	Pergunna ser, of 381 Baroach rs.		38.129	(0.4766)
Lancing Complete	, man, of 40 sers	39 3 10	0.7000000000000000000000000000000000000	(0.4768)
Haveri, Mad. Doub.	Kachchaser, for gvoceries, 23 rs.	0 9 9	23,242	(0.2905)
	Pakka ser, for grain (82 cub. in.)	2 6 13	94.336	(1.1792)
Huidarábád, Mad.		1 15 12	77.170	(0.9646)
2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	Kachcha man, of 12 sers	23 13 0		0.2893
	Pakka ,, of 40 ,,	79 6 0		0.9546
	Pala, of 120 sers for selling	238 2 0		2.8938
Indor, Málwá.	Ser, of 82 Ujjain rupees	2 0 61	78,803	(1.9850)
70	Man, of 20 sers (for grain)	40 8 6	***	0.4925
	Mauni, of 12 mans			5,9096
Lance Construction (1)	Man, of 40 sers, for opium, etc.	81 0 12	***	0.9849
Islampur, Calp.	Ser (see Calpt)	2 0 12	79.600	(0.9950)
	Pakka ser.	2 0 15	80.056	(1.0007)
Jámkhair, Ah-	Ser, commercial, of 50 Ankusi rs.	1 15 81	76.638	(0.9580)
madnagar.	of capacity = 72 tanks	2 4 141	89.702	(1.1213)
1000 miles	Man, of 64 sers?	147 10 0		1.7941
Japan.	Pecul (same as China)	lbs. 1334	***	1.6254
Jaulnah, Hyder.	Tola, of 12 mashas	grs. 184,5	1.025	***
	Pakkh ser, of 80 rs. for grain	2 0 1	77.926	***
	Kaehcha man, of 12 sers (for	80 2 8	***	0.9471
Java.	ghi, liquids, etc.), measure See Batavia.	24 0 12	***	0.2922
Judda, Arab.	Man, of 30 vakias.	2 3 9	86,400	0.0270
Inchance Cat	Bahar = 100 mans, or 10 frazils.	222 8 0	***	2.7039
Jumbusur, Guj.	Market ser, of 40 Buroach rs	1 0 21	39.270	444
	man, of 40 sers	40 6 4		0.4908
	Cotton ,, of 42 ,,	1 0 9	40.256	0.5153
Innovene Ron	Pergunna ser, of 404 Bar. rs		40.000	(0.5000)
Jungypur, Ben.	Ser, of 16 chhatáks	1 8 01	58.408	(0.7301)
Junkceylon, Is.	Bobar 61 Bon for		***	* ***
Kati, Abod.	Bahar == 61 Ben. fac. mans, Ser of 80 Ankusi rs	485 5 5		5.8981
		1 15 8	100 A C 100 C 100	(0.9580
Kutul, "			91,146	(1.1393
Kota, Ajmir.	of 30 Kota rs.	2 7 61		(1.1972
	Man, of 40 sers.	0 12 0	29.166	(0.3646
	Seyn (measure), of 864 Koth pice.	34 2 3	***	0.3646
Kurdo, Gujarat.	Ser, of 80 Ankusi rs	1 15 81	20 000	0.4148
	, of capacity, 90 do	2 3 7		(0.9580
Kumbharia, Sur.	Man, of 40 sers, 8 pice.	37 13 10		(1.0776
Kurod, "	n. n n n 15 n	A 44 A 44 A 44 A	***	0.4601
Lobcia, Arab.	Quintal, of 100 rottoles	62 8 0	1	0.7596
Luckipur, Ben.	Fact. and Bz. weights of Calcutta.	0.0	***	0.1000
Lukhnow, Oudh.	Ser, of 100 Lukhnow rs	2 7 63	95.817	(1.1977
Macassar, Cele-	Tale, of 16 mace - 614 grains		34.111	
bes Is.	Pecul, of 100 entries	135 10 0	10000000	1.6483
Madras.	Pagoda weight = 52.56 grs	1333	0.292	
	Man, of 40 sers, or 8 vis	25 0 0	24.304	0.3038
	Khandi, of 20 mns	500 0 0		6.0764
	Garce, for grain = 12.8 mns	320 0 0	400	3.8888

Piaco.	Denomination of Weights,	Value of Eng- lish averanda- pole weight.	No. of stand- ard Tolks per ser, etc.	Velue of mans, rete, in Mans and doctories,
Madras.	Padi, oil measure = 8 olluks, or Parra, for chunâm = 5 markâls Mangelin, for pearls = 6 grains.	cub.in.3750	Tolks.	Mann.
Mađurá, Corn.	18 Mad. chows = 55 Bom. chows. Ser, of 80 Madura pagodas Man, of 39.244 sers	0 10 4	24.913	0 3038
Malabor.	Palam, of 9 Pondich. rs. 1 kas	grs. 1624	9.022	0.3038
Malacca, Malay.	Tulam, of 40 sers	2 0 12	79.600	0.2817
	Bahar, of 3 poculs Ganton, measure.	6 8 0	252.775	4.9219
Malda, Ben.	Kip, of tin == 30 tampang Ser, of 100 sa. wt. (72 c. i.) ,, 96 (at Mogulbari)	2 9 0	100. 95.665	0.4945 (1.2456) (1.1958)
	82.10 (at Jelapir)	2 1 14 2 0 14	82.336 79.942	(1,0292)
Malwa, Central India.	Scr. of 84 Sálimsábi rs	grs. 190 2 0 6	1.055 78.689	***
Mangalor, Mal.	Man, of 20 sers. Ser, of 24 Bombayrs, (42.79 grs.) Man, market, of 46 sers.	0 9 13	23.850	0.3419
	", Company's (16 rs. heavier). " for sugar == 40 sers.	28 8 13 24 7 8		0.3469 0.2973
Manilla, Phil. Is. Massunh, Red Sen.	Scr, of capacity = 84 Bomb rs Spanish weights and Chin. pecul. Rottolo, of 12 vakias (4800 grs.)	0 10 15	26.635	
Masulipatam, M.	Tulám == 30 chunáms	grs. 179,04 0 11 4	0.995 27.342	(0.3418)
	Pakká man = 40 sers of 2lbs. Ser, of 90 Madras pagodas ,, 72 ,, (for metals)	0 12 0	21.875 29.165 20.210	0.9722 (0.2734) (0.3646)
	Markal, grain measure, 12 sers. Garce, , , , 4800 ,	galls. 3½ ,, 1250		
Mauritius.	Ton, of sugar = 2000 French, etc. ,, grain and coffee = 1400 ,, ,, cloves = 1000	Ibs. 2160 1512 0 0 1080 0 0		26.2500 18.3750
Mocha, Arab.	., ,, cotton — 750 ,,	810 0 0		13,1250 9,8437
acocain, acrao.	Man, of 40 vakias Bahar — 15 frazijs, of 16 mans Teman, measure of rice	3 5 0 450 0 0 168 0 0	128.640	0.0402 5.4687 2.0417
Moluccas.	Gudda, liquid measure = 2 gall. See Ambovna and Banda.	18 0 0		0.2187
Mundissor, Mal.	Ser, of 92 Salimsahi rs Man, of 15 sers (?)	2 3 73 34 4 4 4	86.246	(1.0781) 0.4042
Maişür, Province. Nassuk, Ahmad.	Ser == 24 Maişûr rs. of 179 grs. ,, of 79 Ank. rs. 4 mashas	0 9 13 1 15 4		0.2981
Natal, Sumatra.	Tompong, (Benj. wt.) 20 catties Catty cotan (for do. and camphor) Tale, for precious metals	80 0 0 4 0 0	166.565	(1.1877) 0.9722
Negspatam, Car.	Sukat, grain measure—12 pakkás Ser, of 8 paláms	cub.in.4029 0 9 10	23.470	***
New Hoobly, M. Doab.	Man, of 41,558 sers	0 8 6	20.352 106.488	0.3038 (0,2594) (1,3311)

Place.	Denomination of Weights.	Yatue in Eng- lish avoirdu- pois reight,	No. of stand- and Tolks per ser, etc.	Value of Mans, etc., in Meas and decimals,
M. W. II. D. 41	D1 - 4	Ih. oz. dr.	Tolan.	Mans.
	Dhará contains 13 sers,		20.004	***
Nolye, Malwa.	Ser, of 80 Ujjain rs	1 15 10 39 8 8	76.864	0.4805
Nolgund, Mad.	Kachcha ser - 20g Mad rs	39 8 8 0 8 81	20.736	(0.2592)
Doab.	Pakka ser - 1101 M. rs. 96.6c,i.	2 13 61	110.210	(1.3776)
Okalesur, in Ba-	Ser, of 38 Baroch rs.	0 15 6	37.483	
roch.	Man, of 40 sers	38 8 13	494	0.4685
111000000000	Pergunna ser, 39% Br. rs	1 0 24	39,306	(0.3913)
Omutwara, Mül.	Man, 40 sers Ser, of 81 Salimsāhī rs	40 6 13	25 010	0.3912
Omniewara, Mai.	Man, of 28 sers.	1 15 31 54 10 8	75.916	0.6612
Onor, in Canara.	Man, of 40 to 44 sers	25 0 0		0.3038
	Hâne, grain measure			911
Ujjain, Malwa	Ser, of 80 Ujjain rs.	1 15 10	16,866	(0.9608)
	Man, of 16% sers	33 5 13	***	0.4054
Databal Same	Mani, of 12 mans	400 5 12	***	4.8655
Paichel, Súrat. Palamkots, Car-	Man, of 48 sers, 8 pice Sürut Tulam, of 100 palams, (3 amn.)	45 4 0 12 8 0	***	0.5469
natic.	Padi, for metals.	4 15 0	192,014	0,0600
	Marakkal, retail=1 gall, reven.		102,012	***
Palimbang, Sum.	Catty, of 10 tales	grs. 9494	52.744	***
	Bally, of 10 gantangs	81 6 0		0,9888
Palloda, Ahmad.	Ser, of 78 Ank, rs. 101 mashas.	1 15 2	75.651	(0.9456)
	of capacity, 1031 Ank. rs.	2 8 13	99,195	1 0000
Pandri, Kalpi.	Man, ,, of 64 sers		100 240	1.9839
Panwari, ,,	Ser		106-340 82,943	(1.3292)
Parnair, Ahmad.	,, of 761 Ankusi rs			(0.9162)
	of capacity, 95 rs. 7 m	2 5 2	90.233	(1.1279)
Patna, Bihár.	Tola, of 12 mashas,	grs. 209	1.161	114
16. Table 18. Ta	Ser, from 45 to 81 sh. wt		80.	1.000
Pegu, Birma.	Tical, 100 to the vis.	grs. 2371	1.368	0.0704
	Khandi, 150 vis, reckened at Basket, rice measure, 16 vis	600 0 0	111	6,0764 0,7048
Persia.	Man of Shiraz = 600 misculs	58 0 0 12 10 14.4	193 179	0.1541
	Man of Tabriz, 300 do. 150 dirhs.	6 5 7.2	246,530	0.0770
	Artaba, corn measure, 2 bushels			38000
Pratapgarh, Aj.	Ser, of 80 Sálimsáhí rs	1 14 131	74.967	0.000
mir.	Man, of 20 sers.	38 8 14		0.4686
Pendicherry, Car.	Scr, of 243 Pon. rs =7311 fan.	0 9 114	23,622	0.0140
	Man, of 8 vis Garce of gruin, = 100 markals.	25 14 55	***	0.3146
Penang.	Malay pecul, of 100 cutties	142 10 103	2.2	1.7338
	Bahar, of 3 poculs	428 0 0	- 55	5.2013
	Gantang measure, = 4 chupahs	eub.in 27.165		***
Puna.	See Dakhan.			
Quilon, Trav.	Olunda, or old Dutch pound		42.535	
	Man, of 25 old Dutch pound.	27 5 8		0.3225
	Tulam, of 100 pal, for cotton.	16 11 5.6 15 9 7.3		0.2029
Radnagor, Ben.	Sers of 62, 64, and 80 sa. wt.	The second secon	80.	1.000
B-11	Bagi, for padi - 5 sers of 62		310.	(0.7750)
Rahorf, Ahmad.	Ser, of weight = 77 Ank. rs	1 14 59	73.790	
**************************************	of espacity = 1151 do	2 13 8	110.666	
Rangoon.	Vis of 100 tikals	3 5 5	140.	***
	Khandi, of 150 vis, reckoned	550 0 0	***	6.0764
	Ten, or basket of rice = 16 vis.	58 4 0	***	0.7078

Pincos.	Denomination of Weighta.	Value of Rug- lish avoirab- put weight,	No. of stanti- and Tolies, per see, etc.	Value of Mans, etc., in Mans and decimals,
Rúmbhari, Ab- madnagar.	Ser, of 74 Ankusi rs	lh, oz. dr. 1 13 23 2 8 35	70.901 97.750	Mans. (0.8863)
Rungypur, Ben.	Man, of 64 sers Sers, of 60, 65, 73, 80, 90, and	160 13 8	***	1,9548
Rutlam, Malwa.	460 tolás; the standard ser	2 0 6	80. 78.689	1.000
Salangor, Maly.	Man, of 20 sers	40 7 8 324 0 0	***	0.4918 3.9374
Sankaridrug, Car- natic.	Ser, of 8 palams for provisions. Man, of 41.256 sers.	0 9 12 25 0 0	23,698	0.3038
Santipur, Ben.	Sers, of 60, 80, 84, and 96 to-	20.00		
Seringapatam.	lás ; also factory weights, Kachchá ser, of 24 sultání rs.	0 9 111	80. 23.596	1.000
09.00	Pukka ser, of grain; 84 Sul. rs.	24 4 8 2 1 15§	82.601	0.2950
Siam.	,, kolaga = 16 sers Pecul = 50 cattles of 20 tales	33 15 12		0.4130
Singapore, Malay.	Buncal, for gold	grs. 832	4.622	1.5677
Sinkell, Sumatra.	Pecul, of 100 catties, (see China) Tompong, of 20 cats, for Benzoin	3 8 0	36.110	***
Sálá, Sunda. Sunamuki, Bl.	Pecul, etc. as in China. as in China. Sers, of 58, 10, 60, 72, 731, 75,	· MB		
	and 82.10 tolas; stand. ser.	******	80.	1.0000
Suez, Red Sea.	Rottolo, of 144 drams Quintal varies from 110 to 150 rot	1 4 0	48.610	***
Súrat, Gujarát.	Tolá, of 12 mishas Ser, of 35 tolás	grs. 187.2 0 15 0	1.040 36.458	(0.4557)
m m	Man, of 40 sers.	37 8 0	***	0.4558
Tellicherry, in Malabar.	Ser, of 20 Súrat rupers Man, of 64 sers	0 8 28 32 11 0	19,849	0.3972
Ternate, Moluce. Tranquebar, Cor.	Pecul, of 100 catties	130 3 8,3	***	1.4826
Travancor, M.	Man, = 68 lbs Danish Tulam, of 20 pounds	74 12 9.6 19 14 11	111	0.9088
	Khandi (30 tulānis), for purchase (20 mans), for sale		***	7.2618 6.0826
Trichinopoly,	Parra, grain measure Pakká ser, = 27 tuláms	qrts. 2 I 14 8	74.132	***
Carnatie.	Man, — 13.114 sers Ser, for metals — 4167.7 grs	25 0 0	23.167	0.3038 (0.2896)
Trincomali,	Marakkâl, gr. measure, 1 gall.	0.0.03	20.101	(0.2000)
Vellor.	See Colombo, See Arcot.			
Vizagapatam. Wallahjabad,	See Masulipatam. See Arcot.			

# LINEAR MEASURES.

Notwithstanding the boast of Abú-'l-Fazl, that, among other beneficial effects of Akbar's administration, he had fixed one standard of linear measure for the whole of India, we find at the present day as great irregularity in this branch of our subject, as could have prevailed in his day, or rather much greater; on account of the semiintroduction of European measures in the British Indian territories, and in the Dutch and Portuguese sottlements before them.

There is this peculiarity in the linear systems—that the basis of all is the same, the cubit or human fore-arm: and this unit is found in Oriental countries, as in those of the West, divided into two spans, and 24 finger's-breadths. Thus, under the Hindú princes, the háth (in Sanskrit hasta) was equal to two vitests or 'spans,' and to 24 anguls (angula). The angul 'finger' is divided into 8 jau (s. yava) or 'barley-corns.'

The subdivisions of the yeva—proceeding downwards to the paramánus, or 'most minute atom,' according to the arithmetical works of the Hindús—are, of course, theoretical refinements which it is unnecessary to notice: a full account will be found in Colebrooke's treatise in the 'Asiatic Researches:' [epitomised above, vol. i. page 211]. Proceeding upwards, four háths or 'cubits' are equal to a danda, or 'staff:' and 2000 dandas make a krosa, or kos, which should be, by this estimation, 4000 yards English, or nearly 2½ miles. The kos is generally for convenience now called equal to two English miles. Four krosa — one yojana, nearly ten miles. The 'Lílávatí' also states that 10 háths make one bans or 'bamboo,' and 20 bans in length and breadth — 1 niranga of arable land.

That the cubit was of the natural dimensions (of 18 inches, more or less) can hardly be doubted; indeed, where the hath is talked of, to this day, among the natives, the natural human measure is both understood and practically used, as in taking the draft of water of a boat, etc. In many places also, both in Bengal and in South India, the English cubit has been adopted as of the same value as the native measure.

The gaz, or yard, now in more general use throughout India, is of Muhammadan introduction: whether this is derived also from the cubit (for the Jewish cubit is of the same length) is doubtful; but, like the hasta, it was divided into 24 tasús, or 'digits,' corresponding more properly to inches.

Abú-'l-Fazl, in the 'Ayín-i Akbarí,' gives a very full description of the various gaz in use under the emperors, as compared with the earlier standards of the Khalifs. He expresses their correct length in finger'sbreadths, which may be safely taken as three-quarters of an inch each.

For facility of reference, his list is here subjoined, with the equivalents in English measure at this rate :-

# ANCIENT GAZ MEASURES ENUMERATED IN THE 'AYIN-I AKBARI,'

The Gaz-saudá of Hárún-al-Rashid = $24\frac{\pi}{5}$ (some MSS, have $25\frac{\pi}{5}$ ) fin-	English,
gers of an Abyssinian slave, the same used in the Nilometer of Egypt 1	= 18½ in.
The Kasbah gaz, of Ibn Abililah — 24 fingers	= 18 ,,
The Yûsufî gaz, of Baghdad = 25 ,,	= 18#
The small Hashamah gaz² of Abú Músa Ashari = 28½ fingers	= 214 ,,
The long " Mansur 'Abbas = 29#	
The Umriah gaz of the Khalif Umr = 31	the second second
The Mamunish gaz of Mamun 'Abbasi = 691 ,,	$= 52\frac{1}{9}$ "
The gaz Masahat = 28 ,,	= 21 ,,
Sikandar Lodi's gaz of 41½ silver Sikandaris' 3	
diameter, modified by Humayan to 43 ,, = 32 ,,	= 26
This was used in land measurements till the 31st year of Akhar.	***

The oubit of the Nilometer is supposed to be the same as that of the Jews, which is exactly two feet English:—if so, the 24 digits will be, precisely, inches. Volney, however, makes it 201 French, or 22 English inches. Some allowance must probably be made for the broad hand of a negro, but the other measures will not be affected by the same error, as they must be referred to the ordinary delicate hand of a native

of Asia.

These two are also called the Gaz Mullik and Gaz Zifadiah, because Zifad, the adopted son of Abú Sofian, made use of them for measuring the Arabian Irak.

[Abu-'l-Fazl, in noticing the various descriptions of yard-measures introduced at different times into Hindustan, makes incidental mention of certain coins designated Sikandaris—upon the basis of a given number of the diameters of which the Gaz of Sikandar Lodi was formed. The class of money described ('Num. Chron.'), evidently furnished, among their other uses, the data for this singularly-defined measure. Any tyro in Indian numismatology, under whose eye many specimens of this mintage may chance to pass, cannot fall to remark that, imperfect as their configuration undoubtedly is, as compared with our modern machine-struck money, yet that they hold a high place among their fellows in respect to their improved circularity of form, and general uniformity of diameter-points which had certainly been less regarded in the earlier produce of the Dibli mints.

The passage alluded to is to the following effect:—

سلطان سکندر لودي در هندوستان نيز کزي در ميان آورد و آنرا چهل و یک ونیم اسکندری اندازه کرفت و آن مسین نقدیست گرد نقرهامیز جنت اشیانے نیم دیکر افزود بچهل و دو قرار کرفت \*

With a view to make these coins, even at the present day, contribute towards our knowledge of the true length of this Gaz—which is still a verate questio, I have carefully measured a set of 42 of these pieces, arranged in one continuous line: the result arrived at is, that the completion of the 30th inch of our measure falls exactly opposite the centre of the 42nd coin-

The specimens selected for trial have not been picked, beyond the rejection of five

[ Page V Sir H. M. Elliet's MS. copy of the 'Ayin-i Akbari.' See also p. 355, vol. i., Gladwin's translation.]

The Iláhí gaz of Akbar was intended to supersede the multiplicity of measures in use in the 16th century; and, in a great degree, it still maintains its position as the standard of the Upper Provinces. In general, however, different measures are employed in each trade, and the cloth-merchant, in particular, has a distinct gaz of his own. Thus the cloth gaz has assimilated in many places to two háths, or one yard; and the frequent employment of English tape-measures, as well as carpenter's two-feet rules, will ere long confirm the adoption of the British standard to the exclusion of the native system, for the linear measure of articles in the bázár.

The true length of the Háhí gaz became a subject of zealous investigation by Mr. Newnham, Collector of Farrukhábád, and Major Hodgson, Surveyor-General, in the year 1824, during the progress of the great revenue survey of the Western Provinces, when it was found to be the basis of all the records of land measurements and rents of Upper India. As might have been expected, no data could be found for fixing the standard of Akbar with perfect accuracy; but every comparison concurred in placing it between the limits of 30 and 35 English inches; and the great majority of actual measures of land in Rohilkhand, Dihlí, A'gra, etc., brought it nearly to an average of 33 inches. Mr. Duncan, in the settlement of the Benáres province in 1795, has assumed 33.6 inches to the Háhí gaz, on the authority, it may be presumed, of standards in existence in the city, making the bíghá = 3136 square yards.

The results of the different modes of determination resorted to in 1824-5, so characteristic of the rude but ingenious contrivances of the natives, are curious and worthy of being recorded. Maj. Hodgson made the length of the Iláhí gaz—

very palpably worn pieces out of the total 48 of Mr. Bayley's coins, which were placed at my disposal.

The return now obtained I should be disposed to look upon as a little below the original standard, notwithstanding that it slightly differs from the determination of the measure put forth by Prinsep; but I must add that Prinsep himself distrusted his own materials, and was evidently prepared to admit a higher rate than he entered in his leading table.—E. T.]

Should the length of this gaz be taken at 32 or 33 inches, proportionate corrections must be made in the other measures.

	31.55	in.
=	33.58	10
=	29.20	***
=	31.50	**
=	31.84	11
=	32.02	
=	33.70	,,
		ection
=	33.50	,,
=	33,60	٠.,
=	32.5	**
		= 31.55 = 33.58 = 32.54 = 35.80 = 29.20 = 31.50 = 31.64 = 32.02 = 33.50 = 33.50 = 33.50

It is natural to suppose that the gaz adopted for measuring the land should vary on the side of excess, and probably all the above, thus derived, are too long. The Western Revenue Board, thinking so many discrepancies irreconcilable, suggested that the settlements should everywhere be made in the local bigha, the surveyors merely noting the actual value of the Iláhí gaz in each village, and entering the measurement also in acres; but the Government wisely determined rather to select a general standard, which should meet as far as possible the existing circumstances of the country. Thus the further prosecution of the theoretical question was abandoned, and an arbitrary value of the Iláhí gaz was assumed at 33 inches, which was in 1825-6 ordered to be introduced in all the revenue-survey records, with a note of the local variation therefrom on the village maps, as well as a memorandum of the measure, in English acres. Mr. Holt Mackenzie thus describes the convenience which the adoption of this standard (sanctioned at first only as an experiment and liable to reconsideration) would afford in comparisons with English measures:-

"Taking the jureeb (side of the square beegh,a) at 60 guntehs, or 60 guz, the beeg,ha will be 3600 square guz, or 3025 square yards, or five-eighths of an English acre (3 roods, 5 perches). The jureeb will be equal to 5 chains of 11 yards, each chain being 4 guntehs. In those places where the jureeb is assumed at 54 gaz square, it would equal 4½ chains, giving 2450½ square yards (or 2 roods, 10 perches). In either case the conversion from one to another would be simple, and the connection between the operations of the surveyors and the measurements of the revenue officers would be easily perceived."

This convenient bighá of 3600 square Iláhí gaz, or 3025 square yards, or five-eighths of an acre, may be now called the standard of the Upper Provinces. It is established also at Patna, and has been introduced in the settlements of the Ságar and Narbadda territories.

The notice of land measurement seems altogether to have been overlooked in the returns from the Bengal revenue officers, to the Hon. Court's circular; so that, with the exception of the facts gleaned from the official correspondence above alluded to, and other information hastily acquired from private sources, the present table exhibits nearly a blank in regard to the bighás of Bengal Proper, Bihár, Cuttack, and Central India. Rennell's general estimate of the area of Bengal in bighás of 1600 square yards merely followed the measure in use at Calcutta. The permanent settlement in these provinces left the land unmeasured, and obviated the necessity of an actual survey. In general terms, however, the bighá of the Bengal provinces may be assumed at 1600 square yards, or about one-third of the English acre, and a little more than half of the up-country bighá.

In Madras, Sir T. Munro established a measure (called ground or  $m\acute{a}n\acute{i}$ ) of  $60 \times 40$ , or 2400 square feet, of which 24 make a  $k\acute{a}n\acute{i} = 57600$  square feet, — 6400 square yards, or exactly four Bengal bighás. The Madras  $k\acute{a}n\acute{i}$  is to the English acre as 1 to 1.3223, or as 121 to 160 nearly. In the jágír, the  $ad\acute{i}$  or Malabar foot is used, which is 10.46 inches; 24  $ad\acute{i}s = 1$   $k\acute{a}l\acute{i}$ , and 100 square  $k\acute{a}l\acute{i}s = 1$   $k\acute{a}n\acute{i}$ , or nearly an English acre. The common  $k\acute{a}l\acute{i}$ , however, is 26 adies, or  $22\frac{2}{3}$  feet, which makes the  $k\acute{a}n\acute{i} = 1$  acre,  $28\frac{2}{3}$  perches.

Of the land measures of the Bombay Presidency, Kelly's tables are altogether silent; but as the cubit and gaz are stated to correspond with 18 and 27 inches respectively, doubtless the square measure has also been brought to agree with some aliquot or multiple of the English acre.

It is much to be regretted that the information on this most important point should have proved so defective; but in justification of the officers to whom the Court's circular was addressed, it should be stated that the draft of instructions did not specifically allude to square measures, merely directing that 'for measures of length, one that is nearest to the cubit or ell, should be selected as the model to be sent home.'

# Table of Linear and Square Measures of India.

Pince.	Denomination,	Value in English meas,
Agra, Presidency	Standard Hahi gaz, assumed at	33 inches.
	Standard bigha of Western Provinces	00 1111
	= 60 × 60 guz = 3600 guz	2025 on rule (2 serve)
	Local ma vorice from 22 S to 42 125 on	20 605 Tueber
Ahmadábád	Local gaz varies from 32.8 to 33.25 av.	62.020 inches.
Anmaganad	Gaz, for cloth	21-10 11
	n n volvet	34.20 "
	" artificers	23.33 "
Ahmadaagur	Hath of 14 tasus	
	Gnz, of 1% hath	
Alligarh	n from 30.5 to 33.4	33.00 ,,
Molucca	Covid, or cubit	18.13 ,,
Ahmod	Gaz	27.12
Anjar	, of 34 tasús	26.40 ,,
Aurungabander	n 16 garee	32.00 ***
Bagulkota	., ., 24 tasús	32.87
Bangalor	Hath = 19.1 inches	38.90
Bantam	Hasta	18.00 ,,
Bareli	Gaz, from 32.0 to 33.4	32.90 ,,
Baroda	" of 24 tasús	27.12
Batavia	Ell = 27% inches, Foot =	19 36
Raulenh	Cubit (or hath)	18
Dennies	Gaz, tailor's	10 5
	n wenver's morning	
	" cloth-merchant's	01.0 10
	architect's (maimari)	20.83 "
	Bigha, by Reg. 11, 1795	3136 square yards.
Bencoolen	Hailoh, or two cubits	36 inches
Betelfaxi	Gaz	27 19
Bombay	Hath=18 inches; the gaz =	27 ,,
Bulandshahr	Gaz (originally 33)	31.75
Baroch	Zil'a gaz	27.25 ,,
	Wush	89:6 square inches.
and the second second	Bighā = 20 wusa	2 roods, 20 perches.
Bushire	Half gaz, Shahi	20 inches.
	Bushiri	18.4 ,,
Basrnh	Aleppo yard	26.4 ,,
	Baghdad	31.6 ,,
Calentra	Bigha = 20 kattha of 16 chhataks	1600 source yards.
	Katthá	790 so feet = 80 so wls
	Chhaták	45 -5
Collient	Gaz	og g inches
Kalni	Gaz	20.0 Inches.
Kaipi	" =16 girls	10 "
Cambay	,,	28 77
ou c	Morgen of 600 square roods	2 English acres.
China	Mathematical foot	13,12 inches.
	Builder's	12.7 "
	Tailor's ,,	13.33 .,
	200 lis=1 degree	69,166 miles.
Chittagong	Nal, or bamboo, of 8 haths =	12 feet.
(Mug land mea-	Ganda, of 4 kauris=2 × 3 nals=	96 sq. vds.
sures)	$Kani = 20 \text{ gandas} = 12 \times 10 \text{ nals} = \dots$	1920 sq. vds.
	Dun=16 kānis	30720 so. vds. or 6.35 scree
	Shahi mensures, 4 times greater	Seldom used now
Kasimbazar	Hath	19 12 inches
Dharwis	HAth for astton aletha	19 36
want wal treeter	Hath, for cotton cloths	20.75
DOM	Gaz	0.500 00 00
Peters	Average bighá	2000 sq. yas.
Parada	Gaz from 32 to 33	32.50 menes.
rarruktiábád	Cloth guz = 12 muts (palms) = 48 angul	
	Hath, or cubit = 24 angul or fingers	18 ,,
	Land gnz 101 muts or 42 fingers - ) 14 girss on cloth, g. of 16	31½ "

Place.	Benomination,	Value in English mean.
E. Hetel	Trake of an biase on make an	97561 conous mond.
Farrukhabad	teigua, or 20 missa = 36.00 Hant gaz	27001 square yards.
Gat	Bighá, of 20 bişwa=36.00 Iláhi gaz Portuguese Coyado	26.66 inches.
Gamron	Gaz, 93-100 English vards	38.7
Honsot	of 24 tasús	27.12 .,
Hávari	27 21 12 12 13 1111111111111111111111111	34.75
Haidarábád	Cloth measure	35.33
Tonan	Inc.,,,,,,,	75.00
	Gaz	
Tanka	944	33.0 H
Jambusur	W	27.12 ,
Jungle Mahals	Bighā, 80 × 80 hāths	1600 square yards nearly
Bancura	Gaz, of two haths =	36 inches nearly,
Lohein	Peck	27 0 inches.
Madras	Mani, 60 × 40 feet	2400 square feet.
	Kāni = 24 māni	1.3223 acres.
Malahor	Foot	10 46 inches
Malana	Kovid	19 10
Malarea	Kovia	10.12 11
Malwa	Gaz (from 28 to 32)	30.00 ,,
	Bigha, of 20 wasas	2 roods nearly.
Massaah	Peck	27.0 inches.
Masalination	Yard	38.25
Meanut	Land gaz	33.00
Marke	Valid 10 inches Cox	95
Mocha	Kobid-19 inches. Gaz	20. 19
Muradabad	Gaz, from 31.6 to 35.8	33.50 ,,
	Jarib = 20 gnthas of 3 gaz	167.6 feet.
	Bigha = $18 \times 18 = 324$ source gathas	2304 square vards.
New Hoobly	Gaz	31.75 inches.
Nouleand	Gaz Gaz	33
Dalambatu	Gajum, for cloth	20 45
Paninkon	Calama for croth	30,40 H
Langta	Gaz	40.70 H
l'unwari		36.37 "
Patna	o for carpets, etc. (ifahi) of 44 fingers	33. ,,
	for broad cloth	42.5
	Jarib, 20 bamboos of 3 gaz	55 yards.
	Bigha, 20 x katthas or bamboos	3025 souare vards.
Persia	Guerze, royal	27 5 inches
February	Cuerse, royal acumum management	OF A
	Common measure	
	Parasang, 20th of a degree at the equator	
Rangoon	Taong, or cubit	19.1 ,,
	Taing, or 1000 dhas	2 miles, 293 vards.
Panginur	Gaz, for båfta cloths	63 inches.
Speigropastam	Gajah	88 V
Seringapatani	V-1 -0000 11	95.55
Stam	Vouah (2000 = 1 league)	10.10 "
Sunamuky	Corah, used at the factory	02.4
Surat	Gaz, builder's	27.6
Saidábád	Gaz, land, 31.3 to 32.7	32.0
Tellieberry	Gaz	28.4
Tiches	Revenue lagi, of 61 haths	9 Guet 9 inches
A REMANDER OF THE PARTY OF THE	Bighas, 20 × 20 lagis —	1000 somes words
	Digitiss, 29 × 20 tagis	1300 square yards.
	Small lagi, or rod, 63 haths =	o teet 4g unches,
	Bigha, 20 × 20 ditto =	
	(In Champaran and Chapra, the last or	
	rod is of 7 hoths).	
Transpage	rod is of 7 haths). Tudo, for timber	20 46 embis innhar
Timesucor	t mus, for timeer	on on / t
	Mura, of stone-cutters	5a.02 inches.
	Kolu, in ngriculture	

At most of the places omitted in the above table, such as Acheen, Arcot, Belari, Carwar, Ceylon, Cochin, Comercelly, Jangipur, Bengal generally, Penang, Radnagor, Santipur, etc.; English measures alone are used, or at least a cubit founded on the English measure of 18 inches.

[The following notes are extracted from Elliot's 'Glossary,' already put under contribution (page 92):—

"The Bisura, from "twenty," is the twentieth part of a 'Beeg, ha; 'and besides being a measure of land, is also used to signify the extent of proprietary right in an estate. Each estate or village is considered an integer of one 'Beeg,ha,' which is subdivided into imaginary Biswas and Biswansees, to show the right of any particular party. Thus, the holder of 5 Biswas is a holder to the extent of one-fourth of the entire village; precisely in the same way as the As was used amongst the Romans. Thus, heres at summerio, 'heir to one twenty-fourth'—heres ex dodrante, 'heir to three-fourths'—heres ex asse, 'sole proprietor.' (Cie. Att. iv. 15, vii. 8.—Cie. pro Cacina, c. 6.—Plin. I. v. Ep. 5.) In the same manner bes, bessis, was used to express a bisua barar—'socius ex besse'—and thus in sound and meaning (of course there is no real connection) there is a close resemblance between the words. Bes, when it was thus applied as a sub-division of the As, was the eighth part of a Juyerum or acre; not, as is usually supposed, two-thirds.—'Partes due tertire pedes decomnovem millia et ducentos hocest bes, in quo scripula excii.' (Colum. lib. v. cap. 2).

"Coss, "C

	of distance in glish yards,	Direct distance in ditto.	
Octagonal Minar to Nurelah in Delhi	4,513	4,489	
Minar between Nurelah and Shapoorgurhee	4,554	4,401	
Minar opposite Alcepoor	4,532	4,379	
Minar opposite Siruspoor	4,579	4,573	
Ruins of Minar opposite to Shalimar	4,610	4,591	
Average	4,558	4,487	

Length of the Coss - 2 miles, 4 furlongs, 158 yards.

It is important to observe that the length of the Hahee Guz deduced from these measurements is 32 and inches, showing how very nearly correct is the length of 33 inches assumed by the British Government. The measurements taken to the south of Delhi, between the Minars in the Muttra district, closely correspond. Out of twelve distances it is found that eight give 2 m. 4 f. 19 p. 1 y., three give 2 m. 4 f. 25 p. 3 y., and one gives 2 m. 4 f. 38 p. 2 y. It may be proper to remark that it is frequently supposed that the Minars are set up every two Coss, and that the Coss contained 2,500 yards; but the 'Ayoen-i-Akberee' appears sufficiently explicit on the point. The same work gives the values of the local Coss. It says, 'the Guzerat Coss is the greatest distance at which the ordinary lowing of a cow can be heard, which is determined to be 50 Jureebs, or 15,000 Guz.' This Coss resembles the Chinese lib, i. e. the distance which can be attained by a man's voice exerted in a plain surface, and in calm weather. Another in Bengal is estimated by plucking a green leaf, and walking with it till it is dry. Another is measured by a hundred steps made by a woman carrying a jar of water on her head, and a child in her arms.

All these are very indefinite standards. The same may be remarked of the oriental Meel, as well as the European mile, and league. The two former evidently derive their name from the Roman Milliars, and the difference of their value in different places proves that the mere name was borrowed, without any reference to its etymological signification. According to the 'Kamoos,' the oriental Meel is a lax and vague measure, but it has been considered by Dr. Lee to be to the English one, as 139 to 112. The lengue also, from the German lagen, 'to see,' (signifying the distance that can be readily seen by the eye on a plain surface) is as indefinite as a Guzerat, or Gao, and a Bengal, or Dhuppen, Coss, and sufficiently accounts for its varying

standard in Europe. Coss is an Indian word: the equivalent word in Persian is Kuroh, the same as the Sanscrit Krosa, of which four go to the Yojan; about the precise value of which different opinions are held. Bopp ('Nalus,' p. 213) says it is equal to eight English miles. Professor Wilson ('Sanscrit Dictionary,' p. 689) estimates it at nine miles, and says other computations make it about five miles, or even no more than four miles and a half, and, in his commentary on the Chinese travels, estimates it at no higher than four. But these travels enable us to fix the distance with tolerable precision. By following Fa-Hian's route between places of which the identity is beyond question, as between Muttra and Canouje, and between Patna and Benares, we find the Yojan in his time to be as nearly as possible seven English miles; and this agrees much better with what we find the Yojan to be, if we resolve it into its component parts. Eight barley-corns equal a finger, twenty-four fingers equal a Dund, one thousand Dunds equal one Krosa, and four Krosa, one Yojan. Now, estimating the finger's breadth at eight barley-corns, this makes the Yojan equal to six miles, one hundred and six yards, and two feet. It is the generally received opinion that from Coss is derived the word 'course,' used by the European residents of India to represent a promenade, but the 'Corso' of Southern Europe gives a much more probable origin.

"DRONCHA, Sold WIST dhoncha. Four and a half. The word is found in Arithmetical Tables of the Multiplication of Fractions, which are in constant use with our Surveying Ameens, when reducing their linear measurements to Beeg,has. The words used by them in Fractional Multiplication are

Deorha,	डेवडा	ڏيوڙها	11	Poncha,	पीचा	يونچا	51
Dhuma,	धमा	دهما	. 21	K,honeha,		7. 6. 6	
Honta,				Sutoncha,		1000	
Dhoncha,	धींचा	دهونچا	41/2	Districting	4	سوچا	* 2

The size of the fields rurely requires Ameens to go beyond this."]

<sup>&</sup>lt;sup>1</sup> [These words are both retained in the Spanish eaftz and alward. Indeed, nearly all the Spanish weights and measures are, like very many administrative words, derived from the Arabic:—As the quintal of one hundred pounds, from kintur: of which the fourth (rôsbs) is the arrobs; arraide, a pound, from arrattl; xeme, a span, from shamah; and so on.—'Al Makkari,' i., p. 500.]

# INDIAN

# CHRONOLOGICAL TABLES.

The object of the present division of our work is to furnish-first, convenient Tables for the Reduction or Comparison of the various Eras in use throughout India; secondly, Tables of Ancient and Modern Dynasties, extracted from such sources as are available for India and the neighbouring countries. There are so many excellent works on these subjects as to leave us nothing more than the task of compilation or rather selection. For information regarding the astronomical and chronological computations of the Hindús, Colebrooke, Bentley, and Warren are the principal authorites. The 'Kala-Sankalita' of the latter author contains the fullest particulars of all the Eras in use. It is from this work that the present tables have been principally taken, with such abridgment as was necessary to bring them within the compass of an octave volume. Col. Warren's tables of the Hijra being in a less convenient form, we had remodelled them before it came to our knowledge that a complete series for every month of the Muhammadan era, down to A.D. 1900, had been published in Calcutta, forty-four years ago, in 1790. These tables have, however, been long out of print. Playfair's Chronology, in folio, contains also a supplemental table of the Hijra calendar, copied from the celebrated French work, 'L'Art de vérifier les Dates. There are occasional differences of a day in all tables of the Hijra.

A compendious account of some of the Indian eras was printed as a part of the 'Companion to the Almanac' published by the Society for the Diffusion of Useful Knowledge, for the year 1830. The whole article, however, on the eras of ancient and modern times, is calculated to be of such great utility in this country, both to Europeans who are out of the reach of works of reference or chronology, and to native students of European literature and history, who have no prior acquaintance with the subject, that we make no spology for reprinting the paper entire, as an introduction to the tables which follow.

THE ERAS OF ANCIENT AND MODERN TIMES, AND OF VARIOUS COUNTRIES, EXPLAINED; WITH A VIEW TO THE COMPARISON OF THEIR RESPECTIVE DATES.

In the earliest stages of society, some division of time must have been necessary, and some means devised by men in the most savage state, to communicate to each other the period of undertaking, in concert, a hunt or a predatory excursion. But in such a condition the views of men do not extend far, and very limited periods would therefore suffice. The division of day and night, and the scarcely less obvious distinction of new and full moon, might have served to mark the lapse of time for ages; and, although in all climates the alternations of summer and winter, and of wet and dry periods, must have obtruded themselves on the feelings of the most unobserving, it was probably not until the practice of agriculture had afforded men leisure for reflection, that any accurate observations were made on the duration of the seasons, or means used to ascertain the periods of their return. We see, at the present time, that many societies of men, who live only by hunting and fishing, have no exact knowledge of duration of time beyond that of a moon or season, and designate a term of five or of fifty years, equally as a long time. All agricultural nations are aware of the return of the same seasons after a lapse of twelve or thirteen moons; but many years must have clapsed before the length of a solar year was accurately determined. Loss civilized nations still continue to compute their time in part by the motions of the moon; and this was the mode of the Greeks, and of the Romans until the correction of Julius Cosar, but the subject was so little understood even in his time, that an error of several days crept into the Roman calendar soon afterwards, requiring another reformation.

It will render the comparison of eras much easier, if we give some account of what is meant by a solar and a lunar year. A solar year is that space of time during which all the sensons have their course. This takes place in 365 days, 5 hours, 48 minutes, and 49 seconds; and an approximation to that time has been adopted by those nations which have had sufficient astronomical science to determine it. But as it would be impracticable to begin every new year at a different hour of the day, which would be necessary if the perfect year should always be completed before the commencement of a new one, 365 days have been taken as the length of a year, leaving the odd hours and minutes to accumulate until they amount to a whole day, when they are added to the year, making what is called a losp year, or intercalary year, of 366 days. The various ways of doing this will be detailed when we speak of the different eras. Some nations still use a year of 365 days without any intercalation; and this is called a eagus, or erratic year, because its commencement varies through all the different seasons.

A lunar year consists of 12 moons, or 354 days. This may be convenient enough for short periods, but is so ill adapted for the computation of a civilized nation, that none but Mahometans have continued in the use of it even for a little time. It suits the course of time so ill, that its commencement varies, in a few years, through all the seasons; and many men, amongst the nations which use it, can remember the fasts and festivals altering from summer to winter, and again from winter to summer, and their seed-time and harvest alternately wandering from the beginning of the year to the end.

The luni-solar year is that in which the months are regulated according to the course of the moon, but to which from time to time a month is added, whenever the year would range too widely from its original situation. This year is inconvenient from its varying duration; but as, in a long course of years, the months remain nearly at the same situation, it is less objectionable than the pure lunar year. It was the mode of computation of the Greeks and Romans, and is even now that of the Chinese, Tartars, Japanese, and Jews.

All these varying modes render the comparison of dates much more difficult than it appears to be at the first view. We shall endeavour so far to simplify the calculation as to enable any arithmetician to compute, within a day or two, the cras of every nation, and to reduce them to the Christian era.

#### THE ROMAN YEAR.

The Roman year, in its arrangement and division, is that on which our year is entirely founded. The Romans reckoned their time from the date which some of their antiquaries chose to assign for the founding of Rome, viz., the 21st of April, in the 2nd year of the 6th Olympiad, or 754 n.c. This era is designated by the letters A.U.C., or sb urbe condita, "from the building of the city." The first year used by them, and attributed to Romalus, consisted of ten months, from March to December, or 304 days. A year exhibiting such a discrepancy from the real course of the seasons could not have remained long in use, and it is supposed that extraordinary months were added as often as it was found necessary. A correction is attributed to his successor Numa, who is said to have added two months to the year, January at the beginning, and February at the end. All these months consisted of 29 or 31 days. The year was lunar, and consequently shorter than the true year; several additions were therefore made, which brought the beginning of the year nearly to the same senson, siz., the middle of winter. February subsequently became the second month, which change is alluded to by Ovid.

This computation was followed, with some variation, arising partly from ignorance, and partly from the intrigues of the priests, who had the direction of the calendar, until the time of Julius Caesar, who, observing that the beginning of the year, instead of occurring in winter, as at first, had now receded to the autumn, ordered that the year A.U.C. 707, or 47 a.c., should consist of 445 days, whereby the following year might begin at the proper time. In order to avoid, in future, the confusion naturally attendant on years of such varied length as those hitherto in use, he determined that the year should be solar, without any reference to the lunar motions. Supposing the natural year to consist of 365 days and 6 hours, he ordered that three years in succession should each consist of 365 days, and the fourth should contain 366 days. He also allotted the respective number of days to each month, precisely as we use to this day. With the exception of July and August, (then called Quintilis and Sextilis, but altered to their present names in honour of Julius and Augustus Casar), the names also of the Roman months were similar to ours. The only difference between their calendar and ours was in their mode of counting days, which was backwards instead of forwards. To spare a long explanation, which perhaps might not be sufficiently intelligible to all renders, we shall set down a Roman mouth, with the days, according to our mode, opposite to each Roman day.

En	glis	A. Roman.	En	glis	4.	Roman.
Jan.	1	Calends.	Jan.	6	8th	before Ides.
	2	4th before nones.		7	7th	ditto.
	3	3d before nones.		8	6th	ditto.
	4	day before nones.		9	5th	ditto.
	5	Nones.		10	4th	ditto

English. Roman.	English Roman
Jan. 11 3d before Ides.	Jan. 22 11th bef. Cal. of Feb.
12 day ditto.	23 10th ditto.
13 Ides.	24 9th ditto.
14 19th before Cal. of Feb.	25 8th ditto.
15 18th ditto.	26 7th ditto.
16 17th ditto.	27 6th ditto.
17 16th ditto.	28 5th ditto.
18 15th ditto.	29 4th ditto.
19 14th ditto.	30 3d ditto.
20 13th ditto.	31 day before Cal. Feb.
91 19th ditto	

The nones and ides of March, May, July, and October, are two days later than in January, the nones falling on the 7th, and the ides on the 15th of those months; the 2nd of March will be therefore the 6th before the nones, and so on. In all the other months, the calends, nones, and ides hold the same places as in the month of January. In the months which have but 30 days, the number of days before the calends will, of course, be one less, and in February, three less. In leap years, the additional day was inserted in February, as in our calendar; but instead of making a 29th day, the 24th was reckoned twice, and being called in Latin sexto Cal. Mart., (or sixth day before the calends of March,) this, with the addition of bis (twice), gave the name of bissextile to the leap year, which it still retains. The first year reckoned on this principle was a leap year. (A.U.C. 708, or 46 n.c.)

Julius Casar was killed soon after the reformation of the calendar, and his plan was so little understood, that, instead of making the fourth year a bissextile, a leap year was reckoned every third year, as though the length of the true year had been 365 days 8 hours. This error was discovered 37 years after, at which time thirteen intercalations had taken place instead of ten, and the year began three days too late. The calendar was accordingly again corrected, not by throwing out the three superfluous days at once, but by an order that the twelve following years should be all of 365 days each, and that there should be no leap year until A.U.C. 760, or A.D. 7. From that time the account has been kept without error, and the Roman year has been adopted by almost all Christian nations, with no other variation than taking the birth of Christ as the commencement, instead of the building of Rome.

If the given Roman year be less than 754, deduct it from 754; if the given Roman year be not less than 754, deduct 753 from it; the remainder gives the year (n.c. and A.D., in the first and second cases respectively) in which the Roman year commences.

#### THE OLYMPIADS.

The Greeks computed their time by the celebrated era of the Olympiads, which date from the year 776 s.c., being the year in which Cororbus was successful at the Olympic games. This era differed from all others in being reckened by periods of four years instead of single years. Each period of four years was called an Olympiad, and in marking a date, the year and Olympiad were both mentioned. The year was luni-solar, of 12 or 13 months. The names of the months varied in the different states of Greece, but the Attic months are most usual. They are as follows:—

Hecatombeon, Gamelion,
Metageitaion, Anthesterion,
Boedromion, Elaphebolion,
Pyamepsion, Munychion,
Momacterion, Thargelion,
Poscideon, Scirophorion.

In the year of 13 months, the additional month was inserted after Poscideon, and called the second Poscideon.

The months consisted of 30 and 29 days alternately, and the short year in conscquence contained 354 days, while the intercalary year had 384. The third year of the first Olympiad consisted of 13 months, and the first and fourth years of the second Olympiad were also intercalary; consequently in the first Olympiad there were 1,446 days, and in the second 1,476, making together 2,922, exactly equal to eight Julian years: this mode of intercalation would therefore precisely bring about the commencement of the ninth year to the same season, as that of the first year. But as the Olympic months followed the course of the moon, and 99 such months contained 2,923; days, the moon was in consequence a day and a half in advance of the reckoning. The error was, however, allowed to accumulate until it reached three days, which was in four Olympiads, or sixteen years, to the last of which three days were added. This corrected the errors with respect to the moon, but it threw out the commencement of the year, as regarded the seasons, making it three days too late. No means were adopted to remedy this until the fortieth Olympiad, the last year of which was made to consist of 12 months only, instead of 13 as usual, and the forty-first Olympiad begun with the same days of the moon and sun as the first had done 160 years before. By this reckoning, the year always began between the new and full moon before or after the summer solstice, though more commonly after; and it continued in use until 432 B.C. or fourth year of the eighty-sixth Olympiad, when the cycle of 19 years was invented by Meton. This astronomer found that the Attic months no longer followed the course of the moon, but that the new moon nearest the summer solstice, which should have been the first day of the 87th Olympiad, would actually take place on the 13th day of Scirophorion, in the 4th year of the 86th Olympiad. He therefore proposed to commence the 87th Olympiad from that day, and to adopt a new system of intercalation. He supposed 235 moons to be exactly equal to 19 solar years, and that in every period of 19 years, the new and full moons would recur regularly at the same sessons. Ninoteen years of 12 moons each would contain 228 moons, and consequently 7 moons were to be added. These were inserted in the 3d, 5th, 8th, 11th, 13th, 16th, and 19 years. Instead also of making the months of 30 and 29 days alternately, he determined that each month should consist nominally of 30 days, but that every 63d day should be omitted in numbering. The third day of Boedromion, for example, was omitted in the first year, the 6th of Poseideon, and so on to the end of the nineteenth year, when the last exemptile day (the 3d of Thargelion) was retained, making that year to consist of 385 days. This cycle was in use above a century, but was not quite accurate; 19 solar years are equal to about 6,939 days, 14 hours and a half, and 235 lunations to 6,939 days, 16 hours and a half, or 2 hours more. In the year 330 s.c. this excess amounted to only 11 hours; but by the cycle of Meton, to above 52 hours, he having made 19 years equal to 6,940 days; when another astronomer, Calippus, having made several observations on the solstice, calculated that the excess made I day in 76 years. He, therefore, invented the cycle of 76 years, called from him the Calippian, which consisted of 27,759 days, exactly equal to 76 Julian years, but above 14 hours in excess of the true solar year. In this period were included 940 lunations, equal to 27,758\$ days.

The system of Calippus began in the 8th year of the Metonic cycle (330 a.c.), and is frequently referred to as a date by Ptolemy. It is supposed that he altered the periods of inserting the intercalary months, but this is doubtful. The system of Calippus continued in use as long as the Olympiads were employed, and was exactly equal to the Julian, on an average of years.

To reduce the date by Olympiads to our era, multiply the past Olympiad by four, and add the odd years. Subtract the sum from 777 if before Christ, and subtract 776 from the sum if after Christ, the remainder will be the beginning of the given year; to decide on the exact day would be very difficult, on account of the alterations which the system has undergone. It will be, perhaps, sufficient to observe that the year begins within a fortnight of the middle of July.

#### THE CHRISTIAN ERA.

The Christian era, used by almost all Christian nations, dates from January 1st, in the middle of the fourth year of the 194th Olympiad, in the 753rd of the building of Rome, and 4714th of the Julian period. It was first introduced in the sixth century, but was not very generally employed for some centuries after.

The Christian year in its division follows exactly the Roman year, consisting of 365 days for three successive years, and of 366 in the fourth year, which is termed leap year. This computation subsisted for 1,000 years throughout Europe without alteration, and is still used by the followers of the Greek Church; other Christians have adopted a alight alteration, which will be shortly explained. The simplicity of this form has brought it into very general use, and it is customary for astronomers and chronologists, in treating of ancient times, to date back in the same order from its commencement. There is, unfortunately, a little ambiguity on this head, some persons reckoning the year immediately before the birth of Christ, as 1 n.c., and others noting it with 0, and the second year before Christ with 1, making always one less than those who use the former notation. The first is the most usual mode, and will be employed in all our computations.

The Christian year (or Julian year), arranged as we have shewn, was 11' 11" too long, amounting to a day in nearly 129 years; and towards the end of the sixteenth century, the time of celebrating the church festivals had advanced ten days beyond the periods fixed by the council of Nice in 325. It was in consequence ordered, by a Bull of Gregory XIII., that the year 1582 should consist of 355 days only, which was effected by omitting ten days in the month of October, viz., from the 5th to the 14th. And, to prevent the recurrence of a like irregularity, it was also ordered, that in three centuries out of four, the last year should be a common year, instead of a leap year, as it would have been by the Julian calendar. The year 1600 remained a leap year, but 1700, 1800, and 1900 were to be common years. This amended mode of computing was called the New Style, and was immediately adopted in all Catholic countries, while the Old Style continued to be employed by other Christians. Gradually the New Style was employed by Protestants also. The last ten days of 1699 were omitted by the Protestants of Germany, who, in consequence, began the year 1700 with the New Style; and in England the reformed calendar was adopted in the year 1752, by omitting eleven days, to which the difference between the styles then amounted. The alteration was effected in the month of September, the day which would have been the third being called the fourteenth. The Greeks and Russians still use the Old Style.

To turn the Old Style to the New,-

From the alteration of style to the 29th February, 1700, add 10 days.

```
From 1st March, 1700, to 29th February ...... . ... 1800, add 11 days.
                  1800.
                                      .........1900, H 12 days.
                            ..
          29
                  1900,
                                       ......2100, " 13 days.
   **
          **
  Examples:-17th March, 1801, O.S. is 29th March, 1801, N.S.
              19th Feb.,
                          1703, O.S. is 2nd March, 1703, N.S.
              24th Dec.,
                           1690, O.S. is 3rd Jan.,
              20th Dec.,
                           1829, O.S. is 1st Jan.,
                                                   1830, N.S.
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There will sometimes be a difference of one year in a date, from the circumstance that, in many countries, the time of beginning the year has varied. In England, until the year 1752, the year was considered to begin on the 25th of March; any date, therefore, from the 1st of January to the 24th of March, will be a year too little. It had been the practice for many years preceding the change of style to write both years, by way of obviating mistakes, as 1st of February, 170% or 1707-8, meaning the year 1708 if begun in Jan., or 1707 if begun in March.

In some countries, Easter-day was the first day of the year, in others the 1st of March, and in others, again, Christmas-day; but no certain rule can be given, as even in the same nation different provinces followed a different custom. The day of the week is, however, frequently added in old dates, which will at once clear up the ambiguity, the day of the week answering to any given date.

All nations, at present using either the Old or New Style begin the year on the 1st of January.

The Creation has been adopted as an epoch by Christian and Jewish writers, and would have been found very convenient, by doing away with the difficulty and ambiguity of counting before and after any particular date, as is necessary when the era begins at a later period. But, unfortunately, writers are not agreed as to the precise time of commenting. We consider the Creation as taking place 4004 years a.c.; but there are about a hundred and forty different variations in this respect. The following are those that have been most generally used:—

# THE ERA OF CONSTANTINOPLE.

In this era the Creation is placed 5508 years n.c. It was used by the Russians until the time of Peter the Great, and is still used in the Greek Church. The civil year begins the first of September, and the occlosiastical towards the end of March: the day is not exactly determined.

To reduce it to our era, subtract 5508 years from January to August and 5509 from September to the end.

# ERA OF ANTIOCH, AND ERA OF ALEXANDRIA.

We place those together, because, although they differed at their formation by 10 years, they afterwards coincided. They were both much in use by the early Christian writers attached to the churches of Antioch and Alexandria. In the computation of Alexandria, the Creation was considered to be 5502 years before Christ, and, in consequence, the year 1 a.d. was equal to 5503. This computation continued to the year 284 a.d., which was called 5786. In the next year (285 a.d.), which should have been 5787, ten years were discarded, and the date became 5777. This is still used by the Abyssinians.

The era of Antioch considered the Creation to be 5492 years before Christ; and therefore the year 285 a.b. was 5777. As this was equal to the date of Alexandria, the two cras, from this time, were considered as one. Dates of the Alexandrian era are reduced to the Christian era by subtracting 5502 until the year 5786, and after that time by subtracting 5492.

In the era of Antioch 5492 are always subtracted.

#### THE ABYSSINIAN EBA.

The Abyssinians reckon their years from the Creation, which they place in the 5,493rd year before our era, on the 29th of August, Old Style; and their dates will consequently exceed ours by 5492 years and 125 days. They have 12 months of 30 days each, and 5 days added at the end, called Pagomen, from the Greek word \*\*expoperas, added. Another day is added at the end of every fourth year. To know which year is leap year, divide the date by 4, and if 3 remain, the year will be leap year. It always precedes the Julian leap year by one year and four months. The following are names of the months, with their beginnings referred to the Old Style:—

	9
Mascaram29th August.	Miyazia27th March.
Tekemt28th September.	Gembot26th April.
Hedar28th October.	Sene26th May.
Tahsas27th November.	Hamle25th June.
Ter27th December.	Nahasse25th July.
Yacatit26th January.	Pagomen24th August.
Magabit 25th February	AND COMPANY OF THE PROPERTY OF THE PARTY OF

To reduce Abyssinian time to the Julian year, subtract 5492 years and 125 days.

The Abyssinians also use the era of Martyrs, or Dioclesian, with the same months as in the above.

# THE JEWISH ERA.

The Jews usually employed the era of the Seleucides until the fifteenth century, when a new mode of computing was adopted by them. Some insist strongly on the antiquity of their present era; but it is generally believed not to be more ancient than the century above named.

They date from the Creation, which they consider to have been 3760 years and 3 months before the commencement of our era. Their year is luni-solar, consisting either of 12 or 13 months each, and each month of 29 or 30 days. The civil year commences with or immediately after the new moon following the equinox of autumn. The months, with the number of days in each, are as follows:—

1	Tisri	30 days	7	(Veadar) Nisan, or Abib	30
*	Chesvan or Bul	20 01 00	8	Jyar, or Zius	29
3	Chisleu	29 or 30		Sivan	
4	Thebet	29	10	Thammuz	29
5	Sebat	30	11	Ab	30
	Adar			Elul	

And in intercalary years, 30.

The month Vendar is omitted in years of 12 months.

The average length of the year of 12 mouths is 354 days; but, by varying the length of Marchesvan and Chisleu, it may consist of 353 or 355 days also. In the same manner, the year of 13 mouths may contain 383, 384, or 385 days. In 19 years, 12 years have 12 mouths each, and 7 years 13 mouths. The following table of 19 years will show the number of mouths in each year, as well as the first day of their year, reduced to the New Style: the first day will not always be quite accurate,

¹ The Abyssinians place the birth of Christ in the 5,500th year of the Creation, and consequently eight years after our era.

as certain lucky and unlucky days require the postponement of a day in some years. The year must be divided by 19, and the remainder will shew the year of the cycle. If there be no remainder, it is the nineteenth year.

ME C	T THE	CTCLE.							MO	STEE.	
The	1st	begins :	about th	e 2nd	of	October,	and	consists	of	12	
	2nd			22nd	of	September	r			12	
	3rd			10th		"				13	
	4th	*********	************	29th		32				12	
	5th	********	********	19th		11				12	
	6th	*******		8th		**				13	
	7th			27th		**				12	
	8th	*********	***********	16th		**				13	
	9th			őth	of	October				12	
	10th			25th	of	September				12	
- 1	11th			14th		**				13	
	l 2th	*********		2nd	of	October				12	
	13th			21st	of	September		*********		12	
	14th		**********	10th						13	
	15th			29th		**				12	
	16th		*********	18th		**	***			12	
	17th			7th		22				13	
3	18th			25th		**				12	
- 133	19th	********		14th	and the					13	

To reduce the Jewish time to ours, subtract 3761, and the remainder will show the year: the beginning of the year may be ascertained by the above table, and the months must be counted from that time.

Example - Required the 1st of Chislen 5588.

19)5588(294 38
178 171
78 76

The remainder shows the year 5588 to be the second of the cycle, and consequently to begin on the 22nd of September. The 1st of Chislen will therefore be about the 20th of November, 1827.

The occlesiastical year begins six months earlier, with the month of Nisan. Consequently, when the given year is ecclesiastical, deduct a year in the date from Nisan to Elul, inclusive.

The Jews frequently in their dates leave out the thousands, which they indicate by placing the letters אלבוים meaning "according to the lesser computation."

(It will be unnecessary to mention the various other epochs that have taken place from the Creation, as those detailed are the only ones that have been in general use.)

# THE ERA OF NABONASSAR

received its name from that of a prince of Babylon, under whose reign astronomical studies were much advanced in Chalden. The years are vague, containing 365 days each, without intercalation. The first day of the era was Wednesday, 26th February, 747 s.c.

<sup>1</sup> This is said, by mistake, to be Thursday, in 'L'Art de vérifier les Dates.'

To find the day of any Julian year on which the year of Nabonassar begins, subtract the given year, if before Christ, from 748, and, if after Christ, add it to 747. Divide the result by 4, omitting fractions, and subtract the quotient from 57 (i.e. the number of days, from January 1 to February 26). If the quotient exceed 57, add 365 as often as necessary, before subtraction. The remainder will be the day of the year given. The first result before the division by 4, increased by a unit for each 365 added to 57, will be the year of Nabousssar then beginning.

The day of the week on which the year of Nabonassar begins may be known by dividing by 7. If there be no remainder, the day will be Tuesday; if there be a remainder, the day placed below it in the following table will be the day required.

As the above stated rule may be one day in error from the emission of fractions, it may be corrected by the help of this little table.

The year of Nabonassar being given, to find when it begins.

Rule.—Divide the year by 4: subtract the quotient from 57, adding 365, if necessary, as before; the remainder will be the number of days from the 1st of January.

The given year diminished as often as 365 has been added, will show the number of Julian years from 747 a.c. If it be less than 748, subtract from that number, and the remainder will be the year before Christ: if equal, or more, subtract 747 from it, and the remainder will be the year after Christ.

#### THE EGYPTIAN ERA.

The old Egyptian year was identical with the era of Nabonassar, beginning on the 26th February, 747 a.c., and consisting of 365 days only. It was reformed thirty years before Christ, at which period the commencement of the year had arrived, by continually receding, to the 29th August, which was determined to be in future the first day of the year. Their years and months coincide exactly with those of the era of Dioclesian.

It appears from a calculation, that in 30 s.c., the year must have begun on the 31st of August; in which case we must suppose the reformation to have taken place eight years carlier: however that may be, it is certain that the 29th of August was the day adopted, and the number of the year one more than would have resulted from taking 747 as the commencement of the era.

To reduce to the Christian era, subtract 746 years 125 days.

The old Egyptian year was in use for above a century after Christ; the reformed year being at first used only by the Alexandrians.

# THE JULIAN PERIOD

is a term of years produced by the multiplication of the lunar cycle 19, solar cycle 28, and Roman indiction 15. It consists of 7980 years, and began 4713 years before our era. It has been employed in computing time, to avoid the puzzling ambiguity attendant on reckoning any period antecedent to our era, an advantage which it has in common with the mundanc eras used at different times.

By subtracting 4713 from the Julian period, our year is found. If before Christ, subtract the Julian period from 4714.

THE EEA OF DIOCLESIAN, CALLED ALSO THE ERA OF MARTYES,

was much used by Christian writers until the introduction of the Christian era in the

sixth century, and is still employed by the Abyssinians and Copts. It dates from the day when Dioclesian was proclaimed Emperor, at Chalcedon, 29th August, 284. It is called the Era of Martyrs, from the persecution of the Christians in the reign of Dioclesian. The year consists of 365 days, with an additional day every fourth year. Divide the date by 4, and if 3 remain the year is bissextile. It contains 12 months of 30 days each, with five additional in common years, and six in leap years.

The Coptic months are as follow, with the corresponding time according to the

Julian Calendar.

COPTIC. ARABIC. Thoth Tot. Aug. 29. Paophi Babe Sept. 28. Athyr Hatur Oct. 28. Cohine Kyak Nov. 27. Tybi Tobe Dec. 27. Mesir Mashir Jan. 26.	Phamenoth   Buramat   Feb. 25.
--	--------------------------------

The additional days are called, by the modern Copts, Nisi in common years, and Kebus in leap years; by the ancient Copts Piabotakuji, and in Arabic Biabotanquji. The Abyssinian names are given under the head of Abyssinia.

To reduce the years of this era to those of the Christian, add 283 years 240 days. When the Dioclesian year is the year after leap year, it begins one day later than usual, and in consequence one day must be added to the Christian year, from the 29th August to the end of the following February.

# THE GRECIAN ERA, OR SHA OF THE SELEUCIDES.

dates from the reign of Seleucus Nicator, 311 years and 4 months before Christ. It was used in Syria for many years, and frequently by the Jews until the 15th century, and by some Arabians to this day. The Syrian Greeks began their year about the commencement of September; other Syrians in October, and the Jews about the Autumnal Equinox. We shall not pretend to great accuracy in this ern, the opinions of authors being very various as to its commencement.

It is used in the book of the Maccabers, and appears to have begun with Nisan.

Their year was solar, and consisted of 365 days, with the addition of a day every fourth year.

To reduce it to our era, supposing it to begin 1st September, 312 s.c., subtract 311 years and four months.

The following are the months used by the Greeks and Syrians, with the corresponding Roman months.

MACEDONIAN,	ENGLISH.
Gornigens	Sontomber
II and the second	O premier.
Hyperberetæus	October,
Dius	November.
Apeliæus	December.
Audynæus	January.
Peritius	February.
Dystrus	March.
Xenticos	April.
Artemisius	May.
Dæsius	June.
Panæmus	July.
Lous	August.
	MACEBONIAN. Gorpieus. Hyperboroteus Dius. Apellieus. Audyneus Peritius Dystrus. Xanticus. Artemisius Desius. Panamus Lous.

Dioclesian was not in reality proclaimed until some months after this time.

#### THE DEATH OF ALEXANDER THE GREAT

dates from the 12th of November, 324 n.c., on which day the 425th year of Nabonassar began. This era was computed by years of 365 days, with a leap year of 366 every four years, like the Julian year. The months were of 30 days each, with 5 additional. To compute it, deduct 323 from the given year, and the remainder will be the year of the Christian era. If before Christ deduct the year from 324.

#### THE BRA OF TIRE

began the 19th of October, 125 s.c., with the month Hyperberetzeus. The months were the same as those used in the Grecian era. The year is similar to the Julian.

To reduce it to our era, subtract 124; and if the given year be less than 125, deduct it from 125, and the remainder will be the year before Christ,

#### THE CESAREAN ERA OF ANTIOCH

was used, in Syria, by Greeks and Syrians. The months are the same as those given under the Grecian era. The Greeks began with Gorpiseus, in the year 49 s.c., and the Syrians with Tishrin I. of 48 s.c.

#### THE ERA OF ABRAHAM

is used by Eusebius, and begins the 1st of October, 2016 B.C. To reduce this to the Christian era, subtract 2015 years 3 months, and the remainder will be the year and month.

# THE SPANISH ERA, OR ERA OF THE CASABS,

is reckoned from 1st of January, 38 years m.c., being the year following the conquest of Spain by Augustus; it was much used in Africa, Spain, and the South of France. By a Synod held in 1180, its use was abolished in all the churches dependent on Barcelona. Pedro IV, of Arragon abolished the use of it in his dominions in 1350. John I. of Castile did the same in 1382. It continued to be used in Portugal until 1455.

The months and days of this ern are identical with those of the Julian Calendar; and, consequently, to turn this time into that of our era, we have only to subtract 38 from the year. Thus the Spanish year 750 is equal to the Julian 712. If the year be before the Christian era, subtract it from 39.

### THE ERA OF YEZDEGIRD HI., OR THE PERSIAN ERA,

was formerly universally adopted in Persia, and is still used by the Parsees in India, and by the Arabs, in certain computations. This era began on the 16th of June, A.D. 632. The year consisted of 365 days only, and therefore its commencement, like that of the old Egyptian and Armenian year, anticipated the Julian year by one day in every four years. This difference amounted to nearly 112 days in the year 1075, when it was reformed by Jelaledin, who ordered that in future the Persian year should receive an additional day whenever it should appear necessary to postpone the commencement of the following year, that it might occur on the day of the sun's passing the same degree of the ecliptic. This took place generally once in four years; but,

<sup>&</sup>lt;sup>1</sup> This would be more accurately 323 u.c., but the above date is more usually adopted.

after seven or eight intercalations, it was postponed for a year. It will be observed that such an arrangement must be perfect, and that this calendar could never require reformation; but it has the inconvenience of making it very difficult to determine beforehand the length of any given year, as well as that of causing a difference occasionally in the computation of persons living under different meridians; those living towards the east sometimes beginning their year a day after others more westwardly situate; the sun rising in the old sign to those in the former situation, who consequently continued in the old year another day; while the others, having their sun rise in the new sign, began a new year. The present practice of the Parsees in India varies in different provinces, some beginning the year in September, and others in October. The months are as follows: they have each thirty days, and the intercalation of five or six days occurs at the end of Aban.

Ferwardin, Merdad, Ader,
Ardibehisht, Sheriur, Dei,
Khurdad, Meher, Behmen,
Tir, Aban, Ispendarmez.

To reduce this era to the Christian year, add 630 to the given year, and the sum will be the year of our era in which the year begins, according to the practice of the Parsees.

Every day of the Persian month has a different name.

# THE ERA OF THE ARMENIANS,

The Armenians began their era on Tuesday, the 9th of July, a.o. 552. Their year consists of 365 days only, and therefore anticipates the Julian one day in every four years.

To know the day of the week on which the Armenian year begins, divide the year by 7; if there be no remainder, the year begins on a Monday; if there be a remainder, the day put under it in this table will be the first of the year,

To reduce the Armenian year to the Julian, divide the given date by 4, and subtract the quotient from 191, adding 365 to 191 if necessary; the remainder will be the days from the beginning of the Julian year, and the Armenian date (diminished by 1, if 365 has been added to 191) added to 551, will give the Christian year.

The Armenian ecclesiastical year begins on the 11th of August, and has an additional day at the end of every fourth year; and consequently coincides in division with the Julian year.

To reduce ecclesiastical Armenian years to our time, add 551 years and 222 days. In leap years, subtract one day from March 1 to August 10.

Note.—The Armenians frequently use the old Julian style and months in their correspondence with Europeans.

# THE PRENCH REVOLUTIONARY CALENDAR,

In the year 1792, the French nation, in their excessive desire to change all existing institutions, determined on the adoption of a new calendar, founded on philosophical principles. But as they were unable to produce any plan more accurate and convenient than that which was previously in use, they were contented to follow the old plan under a different name, merely changing some of the minor details and subdivisions, and commencing the year at a different time. The first year of the era of the Republic began on the 22nd of September, 1792, s.s., the day of the antumnal equinox. There were twelve months in each year of thirty days each, and five additional days at the end, colebrated as festivals. The fourth year was a leap year, called by the French an Olympic year. The months and additional festivals were as follow:—

AND THE PARTY OF T				
Vendémiaire began 22         Sep.           Brumaire         22         Oct.           Frimaire         21         Nov.           Nivôse         21         Dec.           Pluviôse         20         Jan.           Ventôse         19         Feb.	Germinal began 21 March.   Floréal			
Festival of Virtue, 17 Sep. ,, Genius, 18 ,, Labour, 19 ,,	Festival of Opinion, 20 Sept. Rewards, 21			

In Olympic years, from the 11th Ventôse (which was on the 29th of February) to the end of the year, each day answered to one day carlier than in other years; thus Germinal began on the 20th of March.

The months were divided into decades of ten days each, instead of weeks. These were the names of their days.

Primidi,	Quintidi,	Octodi,
Duodi.	Sextidi	Novidi,
Tridi,	Septidi,	Decadi.
Consult 11	76.4 June 274	77

As this plan lasted so short a time, it will take less space to insert a table of years corresponding with the Christian era, than to give a rule for the deduction of one era from another.

1	1792-3	8 1799-1800
2	1793-4	9 1800-1801
	1794-6	10 1801-2
4	1795-6	11 1802-3
5	1796-7	12 1803-4
6	1797-8	13 1804-5
7	1798-9	14 1805-6

THE MAHOMETAN ERA, OR ERA OF THE HEGIRA,

dates from the flight of Mahomet to Medina, which took place in the night of Thursday, the 15th July, A.D. 622. The era commences on the following day, viz. the 16th July. Many chronologists have computed this era from the 15th of July, but Cantemir has given examples, proving that, in most ancient times, the 16th was the first day of the ern; and now there can be no question that such is the practice of Mahometans. The year is purely lunar, consisting of twelve months, each month commencing with the appearance of the new moon, without any intercalation to being the commencement of the year to the same season. It is obvious that, by such an arrangement, every year will begin much earlier in the season than the preceding, being now in summer, and, in the course of sixteen years, in the winter. Such a mode of reckoning, so much at variance with the order of nature, could scarcely have been in use beyond the pastoral and semi-barbarous nation by whom it was adopted, without the powerful aid of fanaticism; and even that has not been able to prevent the use of other methods by learned men in their computations, and by governments in the collection of revenue. It will also be remarked that, as the Mahometans begin each month with the appearance of the new moon, a few cloudy days might retard the commencement of a month, making the preceding month longer than usual. This, in

fact, is the case, and two parts of the same country will sometimes differ a day in consequence; although the clear skies of those countries where Islamism prevails, rurely occasion much inconvenience on this head. But in chonology and history, as well as in all documents, they use months of thirty and twenty-nine days, alternately, making the year thus to consist of 354 days: eleven times in thirty years, one day is added to the last month, making 355 days in that year. Consequently, the average length of a year is taken at 354\frac{11}{33} days, the twelfth of which is 29\frac{125}{32} differing from the true lunation very little more than three seconds, which will not amount to a day in less than 2260 years, a degree of exactness which could not have been attained without long continued observations.

The intercalary year of 355 days occurs on the second, fifth, seventh, tenth, thirteenth, fifteenth, eighteenth, twenty-first, twenty-fourth, twenty-sixth, and twenty-ninth years of every thirty years. Any year being given, to know whether it be intercalary or not, divide by thirty, and if either of the above numbers remain, the year will be one of 355 days.

The names of the months, as used by the Turks, with the length of each, are as follow:—

Moharem 30	Regeb 30
Saphar 29	Shahan 29
Rabiu I 30	Ramadan 30
Rabiu II 29	Shawall 29
Jomadhi I	Dhu'l kadah 30
Jomadhi II 29	Dhu'l hajjah 29

## And in interculary 30 days.

# They have weeks of seven days, named as follow: -

		PERSTANS.	*********	490 491900	***** *******	
Su.	Pazar gun	Yekshambe	Etwar	Bawal	Yom ahad.	
M.	Pazar ertesi	Doshambe	Peer or Somwar	Bahun	Yom Thena.	
Tu.	Sale	Sishambe	Mungul	Jebar	Yom tulta.	
w.	Charshambe	Charshambo	Boodh	Dabar	Yom arba.	
Th.	Pershambe	Panjshambe	Jumerat	Femunes	Yom hamsa.	
F.	Juma	Juma or Adina	Juma	Aruba	Juma.	
Sa.	Juma ertesi	Shambe or Hafts	Sunneecher	Shiyar	Sabt.	

#### THE CHINESE.

like all the nations of the north-east of Asia, reckon their time by cycles of 60 years; instead of numbering them as we do, they give a different name to every year in the cycle. As all those nations follow the same system, we shall detail it here more particularly. They have two series of words, one of ten, and the other of twelve words; a combination of the first words in both orders is the name of the first year; the next in each series are taken for the second year; and so to the tenth: in the eleventh year, the series of ten being exhausted, they begin again with the first, combining it with the eleventh of the second series; in the twelfth year, the second word of the first series is combined with the twelfth of the second; for the thirteenth year, the combination of the third word of the first list with the first of the second list is taken, that list also being now exhausted. To make this clearer, we shall designate

the series of ten by the Roman letters, that of twelve by the italics, and the whole cycle of 60 will stand thus.

1 8 4	1 16 f d	31 a q	46 f k
1 a a 2 b b c c d d d d d d d d d d d d d d d d	16 f d 17 g s 18 h f 19 i g 20 k A	31 a g 32 b à 33 c 1	47 g l
3 c c	18 h f	33 e s	48 h m
4 d d	19 i g	34 d k	49 i a
5 0 0	20 k A	35 e I	50 k &
6 f f	21 a i	36 f su	51 a c
7 gg	22 b k	33 c i 34 d k 35 c l 36 f m 37 g a 38 h b 39 i c 40 k d 41 a c 42 b f 43 c g	47 g l 48 h m 49 i a 50 k a 51 k a 52 b d 53 c a 54 d f 55 e g 56 f h 57 g i 58 h l
8 h A	23 € 3	38 h b	53 c e
9 i i	24 d m	39 i c	54 d f
10 k k	25 e a	40 k d	55 e a
11 a l	26 f b	41 a e	56 f A
12 b m	27 g o	42 b f	57 g i
13 c a	28 h d	43 c g	58 h &
14 d b	21 a i 22 b k 23 c i 24 d m 25 e a 26 f b 27 g c 28 h d 29 i e	44 d h	46 f k 47 g l 48 h m 49 i k b 50 k b 51 a c 52 b d 53 c c 54 d f 55 e g 56 f k i 57 g h k 59 i l
1 a a 2 b b c c d d d d d d d d d d d d d d d d	17 g e 18 h f 19 i g 20 k h 21 a i 22 b k 23 c l 24 d m 25 e a 26 f b 27 g o 28 h d 29 i e 30 k f	31 a g 32 b b 33 c i 34 d k 35 f m 37 g a 38 h b 39 i c 40 k d 41 a c 42 b f 43 c f 43 c f	60 k m

The series of 10 is designated in China by the name of teen kan, or celestial signs. Their names are—1, kea; 2, yih; 3, ping; 4, ting; 5, woo; 6, ke; 7, kang; 8, sin; 9, jin; 10, kwey.

The series of 12 are the horary characters, and are named teche, terrestrial signs. Their names are—1, toze; 2, chow; 3, yin; 4, maou; 5, shin; 6, sze; 7, woo; 8, we; 9, shin; 10, yew; 11, sec; 12, hac.

These characters being substituted for their equivalent letters in the cycle, will show the Chinese name of every year; for example, kin tase is the first year; kang yin, the 27th.

The Chinese months are lunar, of 29 and 30 days each. Their years have ordinarily 12 months, but a thirteenth is added whenever there are two new moons while the sun is one sign of the Zodiac. This will occur seven times in nineteen years.

The boasted knowledge of the Chinese in astronomy has not, been sufficient to enable them to compute their time correctly. In 1290 a.p., the Arab Jemaleddin composed a calendar for them, which remained in use until the time of the Jesuit Adam Schaal, who was the director of their calendar until 1664. It then remained for five years in the hands of the natives, who so deranged it, that when it was again submitted to the direction of the Christians, it was found necessary to expunge a month to being the commencement of the year to the proper season. It has since that time been almost constantly under the care of Christians.

The first cycle, according to the Romish Missionaries, began February 2397 s.c.<sup>1</sup>
We are now, therefore, in the 71st cycle, the 27th of which will begin in 1830. To
find out the Chinese time, multiply the eclipsed cycle by 60, and add the odd years;
then, if the time be before Christ, subtract the sum from 2398; but if after Christ, subtract 2397 from it; the remainder will be the year required.

The Chinese frequently date from the year of the reigning sovereign, and in that case there is no way of having the corresponding date but by a list of Emperors. We subjoin a list of those who have reigned for the last two centuries.

<sup>&</sup>lt;sup>1</sup> Dr. Morrison carries it back to the 61st year of Hwang-te, 2596 n.c., making the present year to fall in the 74th cycle; but, according to the celebrated historian Choo-foc-tsze, Hwang-te reigned about 2700 n.c., making 75½ cycles from that period, which is, probably more correct than either of the above statements.

#### TARTAR DYNASTY.

He-tsung begun to reign A.D	1616.		
Chwang-leë	1627.		
Shun-che	1644.		
Kang-he	1662.		
Yung-ching	1723.		
Keen-lung	1736.		
Ken-king	1796.		<u> Zamarania</u>
Taou-kwang	1821,	now	Emperor.

#### THE JAPANESE

have a cycle of 60 years, like that of the Chinese, formed by a combination of words of two series. The series of ten is formed of the names of the elements, of which the Japanese reckon five, doubled by the addition of the masculine and feminine endings, ie and to.

u	Pu		
1 2	kino-je kino-to,	} wood.	The series of 12 is made up of the signs of the Zodiac.
3	fino-je fino-to	fire.	1 ne, rat. 2 ocs, ox. 3 torrs, tiger.
5	tsutsno-je, tsutsno-to,	earth.	4 ov, hare. 5 tats, dragon. 6 mi, serpent.
7 8	kanno-je, kanno-to,	metal.	7 coma, horse. 8 taitsuse, sheep. 9 sar, aps.
9 10	midsno-je, midsno-to,	) water.	10 torri, hen. 11 in, dog. 12 y, hog.

By substituting these words for the letters in the cycle, under the head of China, the Japanese names are found. Thus, the first year of the cycle is called kino-je ne, the 35th, tsutsno-je in, and so on. The cycles coincide with those of the Chinese; but a name is given to them instead of numbering them. Their years begin in Pebruary, and are luni-solar, of 12 and 13 months, with the intercalation as before mentioned under the head of China. The first cycle is said to begin 680 n.c.; but this cannot be correct, unless some alteration has taken place, as the Chinese cycle them began 657 n.c. We know, however, too little of Japan to pronounce positively respecting it; but thus far it is certain, that the cycle now coincides with that of the Chinese.

To an article of this nature, it may not be thought superfluous to append a slight notice of the manner in which some of the aboriginal tribes of America reckoned their time, before its discovery by the natives of Europe. The science of astronomy seems to have advanced there to a much greater extent than is commonly imagined. The extraordinary accuracy of the Mexicans in their computations, surpassing that of the Europeans of their time, cannot be accounted for otherwise than by the supposition that they had derived it from some people more civilized than themselves; and would appear incredible, if not well attested by Spanish authors of the fifteenth century, as well as by many hisroglyphic almanaes yet remaining, of undoubted antiquity. The Peruvians and Muyseas had lunar years of great accuracy also; but this is less surprising, as the phases of the moon are sufficiently visible to the eye, and their returns frequent. We shall detail that of the Mexicans only.

The year of the Mexicans consisted of 365 days; it was composed of eighteen

months of twenty days each, and five additional, called \*semontemi\*, or void. At the end of a cycle of fifty-two years, thirteen days were added; and at the end of another cycle, twelve days, and so on alternately, making an addition of twenty-five days in 104 years. This made the mean year to consist of 365 days, 5 hours, 46 minutes, 9 \frac{3}{12} seconds, being only 2' 39 \frac{100}{12}'' shorter than the truth. As the wanton destruction of the Mexican monuments and hieroglyphic records by their cruel and barbarous conquerors has left little to study, and the extermination of the Mexicans of superior order has done away with their system, we shall not detail the names of their months and particulars of their cycles, which afford striking coincideness with those of the Tartars, Japanese, etc. We shall only add that their first cycle began in the month of January, A.D. 1090.

# INDIAN CHRONOLOGY.

Having completed, in the foregoing extract, a general and condensed account of the eras in use among other nations, we proceed to enter a little more into detail upon the peculiar chronological systems of the natives of India, drawing our information chiefly from Col. Warren's 'Kála Sankalita.'

There are a great variety of eras in use in different parts of India, but all may be classified under four general heads, according to the mode of expressing or of subdividing the year; and in this way it is proposed to notice them: namely, first, those which are founded on the sidereal divisions of the months; secondly, those which follow the intricate and peculiar luni-solar computations; thirdly, those reckoned by cycles, and in which the years are generally distinguished by names, a system which spread from India into Tibet, and was long before used in China and Japan; and fourthly, those derived essentially from the Muhammadan era, though they have since followed the ordinary reckoning of the country. The Hijra era itself is also universally employed by the Musalmáns of India, but there will be no occasion to add to the description already given of this purely lunar year.

The present section will be confined to an account of the construction of the year by each system; the modes of comparison and the application of the tables being reserved for separate explanation.

#### I .- SOLAR OR SIDEREAL YEAR,

The Hindú Solar Year, as it is improperly called, is strictly sidereal; it contains that space of time during which the sun, departing from a given star, returns to the same in his apparent revolution through the zodiac. In the most ancient period of their astronomy, before the introduction of the solar zodiac, the pandits placed the beginning of the year at the entrance of the sun into Aswini, the first of the twenty-seven Nakshatras, or mansions of the fixed lunar zodiac. The solar zodiac was afterwards formed from the lunar one, about the year 1181 s.c. according to Bentley; the names of the months being taken from those of the lunar mansions in which the moon happened to be full in the year of its invention.

Bentley supposes that a lunar cycle, or luni-solar period, was about the same time discovered, there having been 3056 lunations in 247 years and one month, which caused the initial month of the year to change its name every 247 years; the first had been A'swina, the second became Kartika, etc., so that the date of an ancient author's writing may be roughly ascertained, should he happen to mention the name of the commencing month of the year. The following is a useful table of these lunar periods, which lasted until the year 538 A.D.<sup>1</sup>

ривлова.	BEGLEO O 2	MORTHS.	COLUCIDING.	
1 2 3 5 6 7 8	1 Sept. 1192 B.C 1 Oct. 945 ,, 29 ,, 698 ,, 27 Nov. 451 ,, 25 Dec. 204 ,, 23 Jan. 44 A.D 21 Feb. 291 ,, 22 Mar. 538 ,,	1 Aswina 1 Kārtika 1 Agrahāyana, <sup>3</sup> 1 Pausha 1 Māgha 1 Phālguna 1 Chaitra 1 Vaisākha	Chaitra. Vaisākha. Jyeshtha. P. Kshādha. Srāvana. Satabhisha. Bhādrapada. Aşwini.	

The adoption of the fixed sidereal zodiac of twelve signs is ascribed by Bentley with tolerable certainty (from the position of the equinoctial colure and the minimum errors of the 'Brahma-Siddhánta' tables) to this latter epoch; whence Vaisákha has continued to be the initial month of the solar year to the present time. This month corresponds with the sign Mesha or Aries of the fixed solar Hindú ecliptic,<sup>3</sup>

The Hindús divide the year into six seasons (ritu), of two sidereal months each, the succession of which is always the same; but the vicissitudes of climate in them will depend on the position of the equinoctial colure.

<sup>&</sup>lt;sup>1</sup> It is necessary to allude to this lunar division to show how Vaişākha came eventually to be the first month of the solar year.

Bentley supposes the former name of this month, Margasirsha, to have been changed at this period, to denote its new commencing the year.

<sup>&</sup>lt;sup>3</sup> According to the Hindú authorities, the year in which the zodiac was adjusted, or when the solar and sidereal zodiacs agreed, and there was no 'ain-i anshi or precession, was in 969, A.D.

TABLE	I The	order	and	names	in	the	Sa	nekrit,	Hindi,	and	Tamil
	langua										

BEASONS.	ED1078.	PARES OF MORTES.				Naksbatres or Lunc Mensions as they cor responded in 193 s.c.	
		Sanskrit and Senguil.	Urdd.	Tenil.	Thurstill Serworth,	Sanskrit.	
	(12 ★ Mina.	Chaitra,	Chait,	Punguni,	Si.	14 Chaitra. 18 Switt.	
1. Vasanta,	1 Υ Mesha.	Vnişākha,	Baisākh,	Chaitram,	v.	16 Vaisikha. 17 Anuridhi. 18 Jyeshtha.	
	Vrisha.	Jyeshtha,	Jeth.	Vyassei,	1	19 Neriti. 20 Purva Asharba.	
2. Grishma,	3 II Mithum.	Ashādha,	Asarb,	Auni,	G.	(Abbijit afterwards struck out). 21 Uttara Asbirba.	
3. Varsha,	4 ⊞ Karkata.	Srāvaņa,	Sawan,	Audi,		12 Srivana, 13 Srevishtha,	
o. varsaa,	Sinha.	Bhadra,	Bhádon,	Auvani,	v.	25 P. Bhidrapada. 25 U. Bhidrapada.	
4. Sarada,	Kanya.	Kawina,	Asan,	Paratasi,		27 Revati. 1 Aswini. 2 Hearand.	
	Tulá.	Kartika,	Kartik, Aghan,	Arpesi.	Sa.	2 Kritika, 4 Rebint.	
5. Hemanta,	Vrishika.	Mirgostraha or Agrahayana Panaha,	Pas.	Kartiga, ) Margali, )		5 Mrigasiras, 6 Ardra, 7 Punaryana,	
i i	Dhanus.	Magha,	Magb,	Tye,	H.	8 Pushiya. 9 Aslesha.	
6. Şişira,	Makara. 11 m Kumbha.	Phálguna,	Phágun,	4837	Si.	10 Magha, 11 P. Phälguni, 12 U. Phälguni, 13 Hasta.	

The Hindús employ the several following modes of considering the duration of the day:

- The Sávan, or natural day, is the time between two consecutive sun-risings; therefore, this day is of variable duration. Its subdivisions are 60 dhatas, of 60 vinadikas, of 60 vipalas.
- 2. The Saura, or solar day, is the time during which the sun describes one degree of the ecliptic; consequently, longer or shorter as the sun is near the spogee or perigee: it is divided into 60 dandas (or kalas) of 60 vikalas each.
- 3. The Nakshatra day is the true sidereal day, being the time between the same point of the ecliptic rising twice. These are equal throughout the year, and are used in all computations. They are divided into gharis and pales (called vighadias in the south), following always the same convenient sexagesimal division. The pale is again divided into six propass or 'respirations'; but the 'Súrya-Siddhánta' and all astronomical works continue the subdivision by 60 throughout, thus:—

```
60 kshayas = 1 lava.
60 lavas = 1 nimesha.
60 nimeshas = 1 kástha.
60 kásthas = 1 atipala.
60 atipalas = 1 vipala = 0.4 second, English.
60 vipalas = 1 pala = 24 , , , ,
60 palas = 1 danda = 24 minutes ,,
60 dandas = 1 dine or 1 'day' and night.
60 dinas = 1 ritu or 'season.'
```

 The lunar day, or titki, is the 30th part of a lunation, and will be spoken of hereafter: it is used in astrological reckoning.

The division into weeks is also used, and the names of the days are derived from the planets, in precisely the same order as those of Europe.

Table II .- Days of the week, with their sgnonyms in some other languages.

ENGLISE.	minut.	SINGHALESS.	TERRES.	BURNERS.
O Sunday Monday Tuesday Wednesday	Mangal-vár Budh-vár	Eri-då Sa-du-då Ang-gahanuyā-dā Bu-dā-dh	" thag-pa	Tenang-là. Ang-gu. Buddha-hù.
¥ Thursday	(Vrihaspat-vār) or Guru-vār) Sukra-vār (Sanichar, or) Sani-vār	Bra-has-pa-ting-dá Si-ku-rá-dá Sena-su-rá-dá	" phur-bu " pa-sangs " spén-pa	

Rach month contains as many days and parts of a day as the sun endures in each sign; the civil differing from the astronomical account only from its rejecting fractions of days; each civil year and month being accounted to begin at sunrise, instead of at the exact time of the sun's entrance into the respective signs on the strict astronomical computation. If the fraction exceeds 30 gharis (half a Hindú day), then the civil year or month is accounted to begin one day later than the astronomical.

The portion of time assigned to each month further depends on the difference of time calculated for the passage of the sun through the northern and southern signs of the ecliptic, the time for the former being 186d. 21h. 38m. 24s., and for the latter, 178d. 8h. 34m. 6s.; the odd hours and minutes of which are applied to the beginnings of the year and months. The effect on civil reckoning is to produce differences in the relative lengths of the months of one or even two days more, or one day less, and to bring about a bissextile year of 366 days, as nearly as possible once in four years.

The unfixed lengths of the civil months renders it impossible to find the precise day corresponding to any other era, excepting by having recourse to a calculation of the day of the week on which the Hindú civil month in question commenced, which, however, with the aid of the tables provided in Warren's excellent work from the brahmanical formulæ, becomes a very simple problem. The order of the days having remained invariable since they first received their names, if any duration of years be multiplied by the mean length of the year, and the result in days be divided by seven, the remainder will necessarily shew the day of the week (counting from the epoch or initial day), on which the period terminates.

Tables of roots, or moments at which particular epochs commence, such as centuries, will serve to facilitate this calculation, which, in fact, renders the system of the Hindú year more simple in expounding than those of the West, which are liable to secular variations.

A table of roots, as they are called, may in like manner be prepared for the durations of the months singly and collectively, so that by simple addition (rejecting sevens) the initial day of the required Hindú civil month may be accurately found. The dominical letter furnishes the same means of finding the day for any European date, and any two approximate dates may be thus brought to correspond precisely by the intervention of the weekly feriæ. Further explanation and examples of this process will be found in the pages of Calendric Scales, which we shall presently introduce for the purpose of simplifying the transposition of dates from one calendar to another.

It is impossible to enter into further particulars of the formation of the Hindú year without considerable knowledge of their astronomy; but it may be as well to state, that all the calculations of their books depend upon the hypothesis of four grand periods, comprising together 4,320,000,000 years, called a 'Mahá-Yug,' or great epoch of the conjunction of the planets in the beginning of the Hindú zodiac.

The four divisions of the 'Mahá-Yug' are called the 'Satya-yug,' the 'Tretá-yug,' the 'Dwápara-yug,' and the 'Kali-yug,' which latter commenced in March 3102 s.c., and is still current. All astronomical calculations start from this epoch, using the mean motions prescribed, which, by the nature of the system, are all whole numbers, although they vary in different authors, as the progress of observation suggested corrections. The three principal systems are set forth in the 'Brahma-' 'Súrya-' and 'A'rya-' 'Siddhántas,' which Bentley has proved to have been framed respectively about the years 538, 1068, and 1322, a.p. The year by the 'Súrya-Siddhánta' consists of 365d. 15g. 31v. 31p. 24s., and by the 'A'rya-Siddhánta,' 365d. 15g. 31v. 15p., which, expressed

<sup>&</sup>lt;sup>1</sup> This, for the commencement of the Kali-yug, is Friday in the 'Súrya-Siddhánta.' In the epochs used in the 'Arya-Siddhánta,' it is Sunday.

in the European method, will be 365d. 6h. 12m. 36s. 34f.; and 365d. 6h. 12m. 30s. respectively. The latter is employed in the south of India: it differs from the Gregorian reckoning one day in sixty years, the amount of the equinoctial precession. The following table gives a general view of the planetary system according to the above authorities, and that of the 'Parásara-Siddhánta,' another authority supposed by Bentley to be nearly coeval with that of Aya Bhut.

Table III .- General view of the different Hindú Planetary Systems.

Revolu- tions of	'Brahma-Sidihinta.',	"Stryn-Siddhénta."	"Áryn-Siddhánta."	"Parissers-Siddhánta."
The sun	4,320,000,000	4,320,000,000	4,320,000,000	4,320,000,000
The moon	57,753,300,000	57,753,336,000	57,753,334,000	57,753,334,114
Mercury	17,936,998,984	17,937,024,000	17,937,054,671	17,937,055,474
emus	7,022,389,492	7,022,376,000		
fars	2,296,828,522	2,296,832,000	2,296,831,000	2,296,833,037
upiter	364,226,455			364,219,954
Saturn	146,567,298			146,571,813
	199,669	600,000		581,709
Squinoxes.	1 577 010 450 000		1 597 017 549 000	1 577 017 570 000
No. or days	1,011,010,400,000	1,011,011,020,000	1,577,917,542,000	1,011,011,010,000
Apsides—	17.7	(900,000,000	O STAN	
Sun	480	387	461	480
Moon	488,105,858	488,203,000	488,108,674	488,104,634
Mercury.	332	386	339	356
Venus	653	535	658	526
Mars	292	204	299	327
Jupiter	855	900	830	982
Saturn	41	39	36	64
Nodes, (re-		25		
trograde)				
Moon	232,311,168	232,238,000		232,313,235
Mereury.	511	488		648
Venus	893	903	947	893
Mars	267	214		
Jupiter	63	174	96	190
Saturn	584	662	620	630
Revolutions	of the Rishis in an	exclusive enievele	1,599,998	1,599,998

To find the number of lunations, deduct the sun's revolutions from those of the moon, the remainder is the number sought. The mean annual motion of a planet is found by dividing its revolutions by 4,320,000,000, and their mean places at any epoch of the Kali-Yug (k)by the common rule of three, as, 4,320,000,000: revolutions in a Mahákalpa: k: even revolutions and fraction, the latter to be converted into longitude on the Hindú ecliptic.

### ERAS DEPENDENT ON THE SOLAR YEAR.

The Hindú solar or sidereal year is used in India, south of the Nar-

bada, in Bombay, in Bengal, in Tirhút, and Nipál. The two principal eras in use are: 1. The Kali-Yug, dated, as before stated, from the equinox of March, 3102 s.c.; 2. The 'Şáka,' dating from the birth of Sáliváhana, a mythological prince of the Dakhan, who opposed Vikramáditya, the Rája of Ujjáyiní.

This era, called 'Ṣáka,' (a word of the same import,) commences on the 1st Baisákh, 3179, k.v., which fell on Monday, 14th March, 78, A.D. Julian style. Several other styles seem to be connected in origin with it:

### II .- HINDU LUNI-SOLAR YEAR.

The circumstances of the Indian luni-solar year differ from every other mode of dividing and recording time that has been employed in ancient or modern times. Some similarity had been remarked, in the secular omission of a month, to the Chaldean system; and, at a particular period, the common intercalations concurred with those of the lunar cycle of Meton, which led the learned to imagine them derived from the same source; but Warren has proved from a minute analysis of the Hindú 'Chandra-Mána,' that it has no further similitude to other systems than its dependence on the moon's motions must naturally induce.

The ordinary year, called 'Samvat-sara,' or 'mana,' is divided into twelve lunar months; an intercalary month (called in Sanskrit adhika sulgo, 'lound') being supplied, on a particular principle, once in about three years.

The year commences at the true instant of conjunction of the sun and moon: that is, on the new moon which immediately precedes the commencement of the solar year: falling somewhere therefore within the 30 or 31 days of the solar month Chait (Chaitra). The day of conjunction (amásasyá) is the last day of the expired month: the first of the new month being the day after conjunction.

Although the initial element of the year is thus determinate, there are two modes of reckoning the month. In the south of India they begin contemporaneously with the year, on the conjunction (amdvasyd), and run through the 30 days in two divisions of about 15 days, called sucha- or sukla--paksha, and krishna- or bahula--paksha, the light- and the dark--half, or wax and wane, of the moon.

The 'Vrihaspati-Mána,' however, which is derived from the 'Súrya-Siddhánta,' and is followed throughout Hindústán and Telingana, makes the months commence with the full moon (párnamá) preceding the last conjunction; so that new-year's day always falls in the middle of the lunar month Chait, and the year begins with the last paksha, or light-half of that month.'

The lunar months are in all cases named from the solar month in which the assásasyá, or 'conjunction' happens, so that when two new moons fall within one solar month, (for example, on the 1st and on the 30th days,) the name of the corresponding lunar month is repeated, the year being then intercalary, or containing 13 months. The two months of the same name are distinguished by the terms adhika 'added,' and nija, 'proper' or 'ordinary.'

By the 'Surya-Siddhanta' system, the intercalated month takes its place in the middle of the natural month; that is, of the four pakshas, 1, badi, 1, sudi, 2, badi, 2, sudi,—the first badi and second sudi belong to the natural month, and the first sudi and second badi to the intercalated month. The Tamil account makes the first month of the two the intercalated one.

It happens once within each term of 160 years, that there is no new moon in some one of the last six lunar months, which, from the sun being in perigee, as before explained, contain only 30 and 29 days each. On these occasions the month of that name is expunged; but it always happens that two others in the same year are for the opposite cause repeated in such years.

The common intercalary year is called adhika-samvat-sara; the double intercalary, with its expunged month, kshaya-samvat-sara.

The lunar month, whatever may be its civil duration, is divided into 30 tithis, or lunar days, which are subject to similar rules regarding intercalation and omission. When two tithis end in the same solar day, the intermediate one is struck out of the calendar, and called a kshayu-tithi: when no tithi begins or ends in a solar day, the tithi is repeated on two successive solar days, and the first is called adhika. When a tithi begins before or at sunrise, it belongs to the solar day about to begin: when after sunrise, it is coupled with the next solar day, provided it does not end in the same day; in which case, it would be expunged out of the column of tithis, as before explained.

To render this singular mode of computation more perplexing, although the tithis are computed according to apparent time, yet they are registered in civil time.

<sup>&</sup>lt;sup>1</sup> Hence has doubtless arisen the variance in the names of the Tamil and Bengal mouths, the former being in name one mouth behind the others: (See the table of their solar year, page 150).

It is usual, however, to make account of the days in the semi-lunar periods, by the common civil reckoning, beginning (as with the years) after the completion of each diurnal period; thus, the day on which the full moon occurs is the Sudi 14th or 15th, and the following day is the 1st Badi. It is like our reckoning of the sun's place in the zodiac (0\*. + 10°. etc. 1\*. + 10°. etc.), and is evidently better adapted for computations than where the current day or year is the one expressed by the figure.

The circumstance of expunging a tithi happens, on an average, once in 64 days; so that in one year it recurs five or six times. When a tithi is repeated twice it is called triding: one tithi is equal to 0.984 of a day, or 64 tithis=63 days nearly.

To understand the nature of this singular disposition of time, a diagram of an entire lunar month has been inserted in the page containing the scale for the comparison of the luni-solar year, the month selected being the intercalated, or adhiks, Chaitra of the 4924th luni-solar year of the Kali-yug, (A.D. 1822-3) a year in which Davis had ascertained that there would be a kshaya month, and two intercalaries. Warren's book contains the calendar for the whole year in question.

To that work we must refer for the complete solution of the problem of its construction for all cases that may present themselves, wherein perfect accuracy is requisite. The rules which we shall give hereafter will be found sufficient to bring out the result to within a day or two of the corresponding Hindú solar year, and to even closer accordance with the Christian year, in which the days are not liable to the same variations inter as. The elements required for working it out thus far, on the supposition of the sun and moon both maintaining a mean rate of motion in their course, are few, and may mostly be determined from the tables in the present epitome. They are:

- The sun's mean place in the Hindú ecliptic, and the skelcton of the solar months, formed therefrom, to show the disposition of the civil and sidereal days.
- 2. Also the moon's mean place in the ecliptic, which is found from the Ahargana, or sum of days expired from the commencement of the Kali yug to the beginning of the proposed lunar year: it is necessary for obtaining the epochs of the mean conjunctions, during the year in question.
- 3. The Sata-Dina, or day of the week on which the initial conjunction falls. The two latter elements are given for every year of the last three centuries in the second General Table. For periods anterior to 1600, they may be found by adding the secular Aharganas for the broken period, to the root for the nearest epoch, contained in a separate table (VIII.) prepared for the purpose, from the data of the

'Súrya-Siddhánta.' Taking, then, the scheme of the corresponding solar year, and placing the two skeletons thus formed, in juxtaposition, the eye will at once tell what months or days will become subject to the rules of kshaya or adhika, 'expunging' or 'duplication': an example of the process will be given hereafter, in explaining a luni-solar scale contrived for working out the problem by simple inspection.

The place of the sun's and moon's apogee, the equinoctial precession, and the obliquity of the ecliptic, etc., are necessary for the true computation of the lunar days; but this degree of accuracy is beyond our present purpose.

The elements of the solar system (see page 153), would indeed furnish even these data, were it requisite; but the several equations of the sun's and moon's motions, and the gnomonic problem to convert the determinations, made for Lanká, to other situations on the globe, would call for a thorough acquaintance with the astronomic system of the Bráhmans. Where an English ephemeris is accessible, the construction of the Hindú lunar month may readily be effected for any given lunation from the times of new and full moon, corrected for the longitude of the place: it may be remembered, as a general rule, that the first day of every Hindú luni-solar month falls on the day following the new moon; and that it precedes by two days the initial feria (as it is called) of the Muhammadan lunar month, seldom diverging from this arrangement more than one day on either side: this is, of course, without reference to the names of the months, as those of the Hijra are continually gaining upon the others.

# ERAS DEPENDENT ON THE LUNI-SOLAR YEAR. ERA OF VIKRAMÁDITYA.

The principal era to which the luni-solar system is exclusively adapted is that of Vikramáditya, called Samvat, or vulgarly Sumbut. The prince from whom it was named was of the Tuár dynasty, and is supposed to have reigned at Ujjain (Ujjáyiní) 135 years before Sáliváhana, the rival founder of the Sáka era, south of the Narbada (Narmada) river. The Samvat era commenced when 3044 years of the Kali-yug had expired; i.s. 57 years n.c., so that if any year, say 4925, of the Kali-yug be proposed, and the last expired year of Vikramáditya be required, subtract 3044 therefrom, and the result, 1881, is the year sought. To convert Samvat into Christian years, subtract 57; unless they are less than 58, in which case, deduct the amount from 58, and the result will be the date s.c.

The era of Vikramáditya is in general use throughout Telingana and Hindústán, properly so called; it is less used, although known, in Bengal, Tirhút, and Nipál; and, according to Warren, is nearly unknown in the peninsula. The luni-solar division of the year, however, is necessarily adapted to other eras, conjunctively with the solar division, because almost all the festivals and religious observances of the Hindús and Buddhists depend upon the *Chandra-mána* or lunar reckoning. There can, therefore, be hardly said to be any eras exclusively solar, although the Samvat is exclusively luni-solar.

#### THE BALABEL AND SIVA-SINEA BRAS.

The Balabhi era is mentioned by Tod as occurring in an inscription found at Somnáth, and from its locality and connection with the Samvat, it must have been of the same construction, merely dating from a newly assumed epoch, which is shewn in the 'Annals of Rájasthán,' to correspond with 375 of Vikramáditya, or 318 A.D. Balabhi was destroyed in 802 Samvat, when it may be presumed the era was discontinued.

A third era, called the 'Siva-Sinha Samvat,' is also noticed by the same author as having been established by the Gohils in the island of Deo: its epoch or zero corresponds with 1169 Vikramáditya Samvat (1112 A.D.)

The Fasli (vulgarly, Fuslee or Fusly) year, of Upper India, also follows the Samvat division, as being the system in vogue where it was introduced: this will be alluded to again under the fourth head.

### III .- YEARS NUMBERED BY CYCLES.

### ERA OF PARASURAMA.

This division of time Warren states to be used in that part of the peninsula of India, called Malayála by the natives, extending from Mangalor, through the provinces of Malabar, Cotiote, and Travancore, to Cape Comorin. It derives its name from a prince who is supposed to have reigned 1176 years n.c., the epoch being 7th August, 3537 Julian Period, or 1925 Kali-yug. This era is reckoned in cyles of 1000 years. The year itself is solar, or rather sidereal, and commences when the sun enters the sign Kanyá (Virgo), answering to the solar month 'Asan (A'swina). The commencement of the 977th year of the 3rd cycle concurs with the 1st A'swina of 1723 Sáka, and 14th Sept. A.D. 1800.

### THE GRAHAPARIVEITTI CYCLE OF NINETY YEARS.

The southern inhabitants of the peninsula of India use a cycle of ninety years, which is little known, according to Warren, in the Karnátak. This cycle was analyzed by the Portuguese missionary Beschi, while resident for forty years in Madurá. The native astronomers there say it is constructed of the sum of the products in days of 15 revolutions of Mars, 22 of Mercury, 11 of Jupiter, 5 of Venus, 29 of Saturn, and 1 of the Sun.

The epoch of this cycle occurs on the expiration of the 3078th year of the Kali-yug, in 24 s.c. The years follow the ordinary solar or sidereal reckoning. The concurrent cycle and year for any European year may readily be found by adding 24 and dividing by 90: thus 1830 A.D. = 1884-24 = 20 cycles, 54 years.

# THE VRIHASPATI-CHARBA, OR 'CYCLE OF JUPITER.'

The cycle of Jupiter is supposed by many to be one of the most ancient modes of reckoning time, not only in India, but in Asia generally; but we shall shew presently, that with regard to the former country, at least, it is most probably of comparatively modern introduction. It has been, however, known from time immemorial in China, where it partakes of the same peculiarity as on the continent of India, of having separate names for each year of the cycle; but these names are curiously compounded of two series of twelve and five names in the Chinese system, as has been fully explained in page 146, whereas, in India the series of single appellations continues through the sixty years.

The origin of the Vrihaspati-Chakra is unknown: it has been imagined by some to be the same as the Chaldean Sosos, but, Warren thinks, without foundation. It is mentioned in the 'Súrya-Siddhánta,' and other works, and is constructed on astronomical principles, although its genuine application in reference to Jupiter's revolutions has long since fallen into disuse in the south of India, as well as in China and Tibet; and this circumstance will furnish a clue to ascertain the epoch of its introduction into these countries; but we must first describe the different systems followed.

There are three rules for computing the years of the Jovian cycle: 1, that of the 'Súrya-Siddhánta,' followed in this part of India; 2, that of the 'Jyotistava'; 3, that of the Telingas, followed in the south.

According to the first, Jupiter's revolutions being 364,220,000 in a 'Mahá-yug' (see the table in page 153); his motion in one solar year coincides very nearly with one sign of the zodiac (1° 00° 21′ 4″). The actual time, therefore, of the planet's passing through one zodiacal sign (which is called a year of Jupiter) is, as 30° 21′ 04″: 365d. 15g. 31p.:: 30°: 361d. 2g. 5p., the true duration of the Chakra year. The difference, or four days and thirteen gharis short of the solar year, will in eighty-six years amount to a whole year; so that, to keep the cycle in

accordance with the planet's heliocentric motion, one year must be expunged in that period of time.

To find the current year of the cycle on this principle for any year of the 'Kali-yug' (say the beginning of 4870 k.y.) we have—

As 432,000 solar years to 36,422 revolutions of Jupiter, so 4870 to 410 rev. 7 signs, 2½°; the odd signs and degrees give his longitude, which requires a small correction, or bij. Then multiplying 410 by 12, and dividing by 60, we have 82 cycles and 7 years: the latter to be counted always from the 27th of the cycle, or Vijaya, gives the 33rd year, or Vihari.

2nd Method. The 'Jyotistava' rule expounds the last year expired of the cycle, setting out from the Sáka epoch, and reckoning from Prabhava, as the first of the cycle. The rule is as follows:—

Note down the Saka year in two places. Multiply one of them by 22, and add 4291 to the product. Divide by 1875.\(^1\) Add the integers of the quotient to the 2nd number noted down, and divide by 60. The remainder will show the last year expired from Problems. The fraction left by the divisor, 1875, may be reduced to months and days of the current year.

Example:  $4870 \text{ Kali-yug} = 1691 \text{ Saka} \frac{1680 \times 29 + 4201}{1075} = 22 \frac{875}{1075} \text{ and } \frac{1680 + 29}{50} = 28^{\circ}33^{\circ};$  the fraction  $\frac{875}{1075} = 5$  months  $17\frac{1}{2}$  days of the 33rd current year, or *Vibari*, which agrees nearly with the former account.

The effect of the difference between the two systems is, that the expunged year in the 'Jyotistava' reckoning occurs thirteen years antecedent to that of the 'Súrya-Siddhánta.'. The second General Table follows the latter account, which must be borne in mind when consulting the chakes column.

This form of the Vrihaspati-Chakra prevails throughout Bengal, but little more than the name is ever attended to.

3rd Method. The Telinga rule takes no notice of the commencement of the Vrihaspati year, which it identifies in duration with the Chandra-mana, or common luni-solar account: thus it directs to

Divide the expired years of the Kali-yag by 60, the quotient will give the number of cycles expired, and the remainder the odd years, to be reckoned from Pramathi the 13th of the Chakra.

Example: For the year 4870 Kali-yug 4870 + 60 = 84 cycles, 10 years, or Sarva-dhari, the 22nd, as expired. Virodhi, the 23rd, will be the current year sought.

This is the rule followed in the peninsula, and it coincides with the practice of Tibet, as appears from the following particulars, for which we are indebted to M. Csoma de Körös's researches:—

### TIBETAN KALENDAR.

In Tibet the cycle of Jupiter is employed; but as the Sanskrit

Multiplying by 22, and dividing by 1875, is equivalent to dividing by 85.227, the period when a year is to be expunged by this system.

literature was there introduced at a late period, this country presents the anomaly of preserving two series of denominations for the Chakra years: one derived from the Chinese by exact translation, and the other in a similar manner copied from the Indian cycle.

The whole Tibetan kalendar is, indeed, copied from the Indian; giving the solar and lunar days, the nakshatras, yogas, and karanas; with the usual lucky and unlucky days. The months are divided into karchoks and nak-choks, or bright and dark halves, etc. The astronomical year begins with the vernal equinox (sidereal) on the first Baisákh, but the civil year commences differently in different parts of Tibet, varying from December to February. At Ladákh it begins in December. The Hors or Turks keep their new year some days after the winter solstice in January; and the people of U, tsáng at Lassa commence theirs with the new moon of February. The months have several names expressive of the seasons, asterisms, business undertaken in them, etc., but they are usually denominated numerically; first, second, etc. The year is luni-solar with intercalations.

The only fixed epoch in Tibet appears to be the birth or death of Sákya, from which event the almanacks note the years elapsed; sometimes also they note the year from the death of the two great Lamas of Lassa and Teshi-lunpo, or their re-incarnations within the last two centuries, and other memorable events.

The Tibetans, in estimating their age, especially in conversation, count by the cycle of 12 years (which is, in fact, the true cycle of Jupiter).

In the ordinary business of life, the cycle of 60 years is universally employed, in which each year has its distinct name. The cycles themselves are not distinguished numerically, but are rendered intelligible by the mention of some coincident event or remarkable person of the period, a mode highly objectionable for remote dates.

The order of the years agrees precisely with the Tamil account to the present time, having no expunged year. But the Tibetans do not count from the same fixed epoch. Their authors on the 'Kala-Chakra'<sup>1</sup> system state that the mode of reckoning by cycles of 60 years was introduced into India about the year 965 A.D., and that 60 years afterwards it was adopted in Tibet (about 1025-6 A.D.) Their epoch, therefore, occurs in 1025 A.D.

Now, it is remarkable that the 69th cycle of the 'Súrya-Siddhánta,' and the 15th cycle of the 'Jyotistava,' and the 68th cycle of the Telinga astronomers, were all completed in 965-6 a.p., which is not much prior to Bentley's epoch of Varaha Mihira, the supposed author of the former work.

<sup>&</sup>lt;sup>1</sup> See a note by M. Csoma, on this subject, in the 'Jour. As. Soc.', vol. ii. p. 57; [and the quotation from Albiráni (Reinaud's 'Fragments'), infré, p. 167.]

Moreover, the two systems, starting from the point thus assumed, would up to the present period (on account of the omitted years in the one) diverge between 10 and 11 years from one another, which is actually the case, the year 1834 A.D. agreeing with the 39th year of the Bengal cycle, and with the 28th of the Tamil and Tibetan account.

That the cycles did not commence either with the Kali-yug or with the Saka epoch is proved by the two rules given above for expounding their dates, which expressly state that the odd years are to be reckoned from Vijaya (the 27th) and Pramathi (the 13th) respectively, and not from Prabhava (the 1st) as would naturally be expected.

It is not, therefore, unreasonable to conclude that the theory of the Vrihaspati-Chakra was invented or introduced in India, as affirmed by the Tibetan authorities, in the middle of the tenth century; and this might be adduced as a confirmation of the date assigned by Bentley to the 'Súrya-Siddhánta,' which upholds and expounds that cycle.

M. Csoma states that before the introduction of the cycle of Jupiter into Tibet, frequent mention is made in their books of a period of 403 years, called mé-kha-gya-tsho, a symbolical name for the number 403: and dates are always expressed in it, as the 80th, 240th, or any other year of this period: now it is curious, as M. Csoma remarks, that if 403 be deducted from 1025 A.D. the remainder, 622 A.D., exactly coincides with the epoch of the Hijra, leaving an impression that the latter era had been once established there. The destruction of the Buddhist religion to the north is ascribed to the Muhammadans by the Tibetan authors.

We subjoin a catalogue of the Sanskrit, Tibetan, and Chinese names of the sixty Chakra years, with an English translation of the last two. The Sanskrit names have also a meaning which is precisely rendered in Tibetan. But they have no reference to any precise objects, and are therefore not worth insertion.<sup>2</sup> It should be remarked that the first year of the Indian series corresponds with the fourth of the Chinese, which goes far to disprove the connection of the two cycles; for had the discrepancy been owing to the different modes of reckoning (as with the 'Sarya Siddhánta' and the Telinga), the divergence would have been at the other end of the scale; unless, indeed, it should have run through 56 years, which would have occupied nearly 50 centuries.

See 'Jour. As. Soc.,' vol. iii. p. 6: Gye-tsho, 'a lake'=4: Kha, 'void'=0: and sed, 'fire'=3.

<sup>&</sup>lt;sup>2</sup> The latter names are extracted from Warren's 'Kâla Sankalita:' the Chinese from De Guignes' 'Histoire des Huns;' and the Tibetan from M. Csoma's forthcoming 'Grammar of the Tibetan Language,' now under publication.

Table IV.—Names and Numbers of the Vrihaspati-Chakra, or 60 years'
Cycle of Jupiter, in Sanskrit, Tibetan, and Chinese.

	Sauskrit Names.	Tibetan translation of Sanskrit Names,	Tibetan transla- tion of Chinese Names.	Chinese Names.	Menning of Chinese names.	Ca No
1	Prabhava.	Rab-byung.	Mé-yos.	Ting-mao	Fire-hare.	
2	Vibhava.	r Nam-Hbyung.	Sa-Hbrug.	Vou-chin.	Earth-dragon.	
3	Sukla.	Dkar-po.	Sa-Sbrul.	Kise.	Earth-serpent.	
4	Prumodha.	Rab-myos.	Chags-r Ta.	Keng-ou.	Iron-horse.	
5	Prajápati.	Skyés-bdag.	Chags-lug.	Sin-ouei,	Iron-sheep.	
6	Angira.	Angira.	Ch'hu-spré.	Gin-chin.	Water-ape.	
7	Srimukha.	Dpal-Qdong.	Ch'hu-bya.	Kuci-yeou.	Water-bird.	1
9	Bhàvà,	Dnos-po.	Shing-k'hyi.	Kia-su.	Wood-dog.	1
9	Yuva.	Na-tshod-ldan.	Shing-Phag.	Yhai.	Wood-hog.	i
0	Dhátá.	Hdsin-byéd,	Mé-byi.	Ping-tse.	Fire-mouse.	i
i	Iswara.	Dvang-p'hyug.	Mé-gLang.	Ting-tcheou.	Fire-ox.	1
2	Bahudanya.	Hbru-mang-po.	Sa-Stag.	Vou-yn.	Earth-tiger.	j
3	Pramathi.	Myos-ldan.	Sa-yos.	Ki-mao.	Earth-hare.	1
i	Vikrama.	r Nam-Quon-	1Chags-Hbrug	1995	Iron-dragon,	li
5		K'hyu-Meh'hog.	1Chags-Sbrul.	Sin-se.	Iron-serpent.	li
6	Brisya. Chitrabhánu	Sna-ts'hogs.	Ch'hu-rTn.	Gin-ou.	Water-horse.	i
7	Sábhánu.		Ch'hu-lug.	Kuci-ouci.	Water-sheep.	13
8	480	Nyi-ma.	200 d	Kia-chia.	Wood-ape.	B
9	Tarana. Parthiya.	Nyi-Sgrol-byed.	Shing-spré. Shing-bya.	Y-yeou.	Wood-bird.	ľ
		Sa-skyong.	Mé-K'hyi.	Ping-su.	Fire-dog.	l
0	Vyaya.	Mi-zad.		Ting-hai.	Fire-hog.	
1	Sarvajit.	thams-chad-Hdul.	Me-Phag.	You-tse.	Earth-mouse.	1
2	Sarvadhari,	Kun-Hdsin.	Sa-gLang.	Ki-tcheou.	Earth-ox.	
3	Virodhi.	Hgal-va.	toa-grang.	Marie Contract	-	
4	Vikrita.	rNam-rgyal.	1Chags-Stag.	Keng-yn.	Iron-tiger.	
5	Khara.	Pong-bu.	IChags-yos.	Sin-mao. Gin-chin.	Iron-ape.	1
6	Nandana.	Dgah-va.	Ch'hu-Hbrug.	Carry Carry Company	Water-dragon.	
7	Vijya.	rNam-Hgyur.	Ch'hu-Sbrul,	Kuci-se.	Water-serpent.	
8	Jya.	rGyal-va.	Shing-rTa.	Kia-ou,	Wood-horse.	
9	Manmatka,	Myos-byed,	Shing-lug.	Y-oues.	Wood-sheep.	
0	Durmukha.	Qdong-nan-	Me-Spre.	Ping-chin.	Fire-ape.	
1	Hémalamya.	Qjer-Hp'hyang.	Mê-bya.	Ting-yeou.	Fire-bird.	E
2	Vilamya.	rNam-Hp'hyang.	Sa-Khyi,	Vou-su.	Earth-dog.	k
3	Vikari.	Sgyur-byed.	Sa-P hag.	Ki-hni,	Earth-hog.	В
4	Sarvari,	Kun-ldan.	I Chags-byi.	Keng-tse.	Iron-mouse,	ŀ
5	Plava.	Hp'har-va.	1 Chags-gLang		Iron-ox.	ľ
6	Subhakrit.	Dgé-byéd.	Ch'hu-Stag.	Gin-yn.	Water-tiger	b
7	Sobhana.	Mdsés-byéd.	Ch'hu-yos.	Kuci-mao.	Water-hare.	P
8	Krodhi.	K'hro-mo.	Shing-Hbrug.	Kia-chin.	Wood-dragon.	Ŀ
9	Viswavasu.	Sna ts'hogs-Dvyig	Shing-Sbrul.	Y-se.	Wood-serpent.	
0	Parabhaya,	Zil-Qnon.	Mé-rTa.	Ping-ou.	Fire-horse.	1
1	Plavanga.	Speéhu.	Mé'-Lug	Ting-ouci.	Fire-sheep.	ŀ
2	Kilaka.	P'hur-bu.	Sa-Spré.	Vou-chin.	Earth-ape.	ì
3	Saumya	Zhi-va.	Sa-bya.	Ki-yeou.	Earth-bird.	P
4	Sádhárana.	t'hun-mong.	1Chags-Khyi.	Keng-su.	Iron-dog.	
5	Virodhakrit.	Hgal-byéd.	IChags-Phag.		Iron-hog,	
6	Paridhavi.	Yongs-Hdsin.	Ch'hu-byi.	Gin-tse.	Water-mouse.	1
7	Pramādi,	Bag-med.	Ch'hu-gLang.	Kuis-tcheou,	Water-ox,	ľ
8	Ananda.	Kun-Dgala-	Shing-Stag.	Kia-yn,	Wood-tiger.	L
9	Råkshasa.	Srin-bu.	Shing-yos.	Y-mao.	Wood-hare.	1
0	Anala.	Mé.	Mé-Hbrug.	Ping-chin.	Fire-dragon.	ŀ
1	Pingala.	Dmar-Ser-chan.	Mé-Sbrul.	Ting-se.	Fire-serpent.	t
2	Kalayukta.	Dus-kya-pho-nyi.	Sa-rTa,	Vou-ou.	Earth-horse,	Ð
3	Sidharti.	Don-grub.	Sa-lug.	Ki-ouei.	Earth-sheep.	l
4	Randra.	Drag-po.	1Chags-Spré.	Keng-chin.	Iron-ape.	13
5		b Lo-nan.	1Chags-bya.	Sin-yeou.	Iron-bird.	1
6		rna-ch'hén.	Ch'hu-Khyi.	Gin-su.	Water-dog.	
7	The second second	K'hrag-Skyug.	Ch'hu-P'hag.	Kuci-hai.	Water-hog.	ľ
8		Mig-Dmar.	Shing-byi.	Kin-tse.	Wood-mouse.	1
9		Khro-vo.	Shing-gla-	heota.	Wood-ox.	
10		Zad-pa.	Mé-Stag		Fire-tiger.	1

### ERA OF BUDDHA.

### USED IN CEYLON, AVA, PEGU, SIAM, ETC.

The determination of the epoch of Buddha, Gotama or Sákya, has engaged the attention of many learned Orientalists, and although there remain some discrepancies in the results arrived at, most of these may be explained and reconciled by assuming that several individuals of the same character have existed at different epochs, or that the system of Buddhism has been at these times revived or re-organized.

Omitting all mention of the earliest Buddhas, such as the one who figures at the head of the lunar race of Hindú mythology, it may be advanced with tolerable confidence that the two latest of the epochs attributed to this personage are founded on actual events, from the near coincidence which may be observed in the statements of distant nations regarding them. A critical notice on the subject by Prof. Wilson, appeared in the 'Oriental Magazine' for 1825, which furnishes the following data for the epoch of, what may be called, the Elder Buddha.

According to Padmakarpo, a Lama of Bhutan, who wrote in the 16th century	B.C.
(made known by M. Csoma de Körüs)	1058
By Kalhana Pandit, author of the history of Kashmir	1332
" Abû'l-Fazl, probably following the last	1366
,, A couplet from Chinese historians	1036
,, De Guignes' Researches	1027
" Giorgi, (period of Buddha's death)	959
" Bailly	1031
" Sir William Jones	1027
., Bentley, one occasion, 1081; on another	1004
, Juchrig, from a Mongol Chronology, published by Pallas	991
" Japanese Encyclopædia, birth of Buddha	1027
, his death	960
Matonan-lin, a Chinese historian of the 12th century	1027
" M. Klaproth himself, concurring with Sir William Jones	1027
M. Rémusat dates the death in	970
The era adopted at Lassa, and founded on the average of nine of the dates	
quoted by Padmakarpo, who himself however rejects them	835

The majority of these quotations concur in fixing the period of the existence of a Buddha about 1000 years anterior to the Christian era. It is not, however, believed that any chronological era is founded upon this period: and if derived from book authorities, or tradition, the same would have travelled wherever the religion spread.

There is an equally extensive and consistent series bearing testimony to the existence of a Second Buddha in the sixth century before Christ; indeed most of the cras noted are evidently identical in origin and concurrent in date to the present time.

The Burmese epoch of Gotama's death, as given by Crawfurd from a native chronological table	B.C. 544
The Singhalese epoch of Buddha's death, and commencement of their ern, on	
the landing of Vijaya, according to Turnour ('Ceylon Almanac' for 1834)	543
The Siamese epoch, (Oriental Magazine, 1825)	544
The nervana of Sakya, according to the Raj-guru of Asam, occurred in the 18th year of Ajata Satru, and 196° years before Chandragupta, the contem- porary of Alexander, which may agree thus, 348 + 196 =	544
This date may further be reconciled with the other three	-0.00
quoted by Wilson in conjunction with them, namely,3	n.c.
The Singhalese	B.C.
The Peguan	638
And the Chinese cited by Klaproth	638
by referring these latter periods to the birth, and to the ministree commencement of the reign of Sákya; for by the Burmese cale the first of these events happened in the year 628 n.c., and the lefter of these events happened in the year 628 n.c., and the lefter of the latter chronicle, which also places the nirvána of Goin the 8th year of Ajátasat (Ajáta-satru), instead of the 18th, as a given: by adding, then, a correction of ten years, from whatever of it may have originated, the Burmese dates will correspond exactly those of Pegu and Ceylon; and they are thus brought to the confittion of the unity of origin of the eras of all the countries we received their religion from Ceylon, or through the latter from cer India.4	atter early tama bove sause with rma- hich

### JAIN ERAS.

The Jains in some parts of India are stated to follow the era of their last Jina, Mahávíra, whom they make to be the preceptor of

1 The 'Oriental Magazine' makes this date 546, but the authority in the text is most to be relied on. According to the invariable rule of Eastern chronologists the year is not numbered until after its completion. Thus an inscription or document is always dated 'so many years being expired after the death of Gotama:' and thus the year 1 of the Burmese sacred era corresponds with the second current year or 543 m.c. while the epoch, or mirring of Sakya happened in 544.

3 162 years by the Burmese table in Crawfurd.

<sup>3</sup> [ The proof of this sheet has been submitted to Prof. Wilson, who intimates to me that there are no new data of sufficiently positive bearing on this question to justify any alteration or emendation of Prinsep's original text. Burnouf seems to

place the event in 543 n.c.— Le Lotus de la bonne Loi, p. 487.]

The 'Journal Asiatique,' for November, 1833, contains a chronological table of the events of Buddha's life, derived entirely from Chinese and Japanese authorities, which makes it very evident that the Fo or Buddha of 1027 B.c. is the same identical personage as the one who died 544 n.c. As far as real chronology is concerned the recent date is alone in use; but the more ancient date seems to be supported by some passages in the Sanskrit original text.

Gotama, and place a few years anterior to him, in the year 569 B.c., and 512 before Vikramáditya. None of the Jain inscriptions found in South Bihár or elsewhere, however, shew any trace of an exclusive chronology, while they invariably bear the common Samvat date of Vikramáditya. One inscription on a brass image found on digging a tank at Baghelpur, is dated 'after Pársa 925,' which Dr. B. Hamilton interprets 'after Párswanátha, the twenty-third teacher of the Jain religion, and consequently somewhat anterior to Mahávíra, who was the twenty-fourth;' but nothing positive can be asserted of these vague epochs.

### BURMESE ERAS.

Other eras prevail in the Burmese country, which are more generally employed for the business of life, while the sacred era is kept up in ecclesiastical documents. The Prome epoch was established by king Samandri, and its first year corresponds with 623 of the sacred epoch, or 79 a.d. It seems to be the same as the Sáka era of Sáliváhana. The present Vulgar epoch used throughout Ava was established by Puppa-chan-ra-han; the first year agreeing with 639 a.d. or 1183 B. sacred era. The division of months accords with the luni-solar system of the Hindús in every respect, the year beginning as usual with the new moon of the solar month Chaitra. To reduce the Burmese vulgar year into the Christian, add 638. For the Prome era the number 78 must be used for the like purpose. They have also another sacred era, called the Grand Epoch, said to have been established by An-ja-na the grandfather of Gotama: the first year corresponds with 691 n.c.

# NEWAR ERA OF NIPAL.

Besides the Saka and Samvat eras introduced by the Gorkha dynasty into Nipál, there is still in use among this people a former era, called the Newár, from the name of the ancient dominant, or aboriginal, tribe of the valley. Dr. Bramley informs us that the origin of this era is not known, though many attempt to account for it by fabulous stories. The Newár year commences in the month of October, the year 951 terminating in 1831 A.D. Its epoch concurs therefore with the month of October, 870 A.D., which number must be retrenched from a Newár date to have the corresponding Christian year.

[In concluding Prinsep's notices of Local Eras, I extract from the work of Albirúní some further details in reference to Indian cycles, to

<sup>1 &#</sup>x27;Trans. Roy. As. Soc.', vol. i. 527.

complete the quotations previously given in reference to the epoch of the Guptas, inserted at p. 268, vol. i. ]

\*Toutes ces ères présentent des nombres considérables remontent à une antiquité reculée, et leurs années dépassent les nombres cent mille et au delà. Ces nombres ont embarrassé les astronomes dans leurs calculs, et, à plus forte raison, le commun des hommes. Nous allous donner une idée exacte de ces ères, et nous rapporterons nos calculs à l'année des Indiens, dont la plus grande partie correspond à l'an 400 de l'ère de Yizderdjed. Cette époque s'exprime par un nombre rond et n'est embarrassée ni de dizaines ni d'unités. Cet avantage lui est particulier et la distingue de toutes les autres années.

'De plus, elle a été rendue à jamais célèbre par la chute du plus fort boulevard de l'Islamisme et la mort de l'illustre sulthan Mahmoud, lion du monde et le phénomène du temps: Dieu lui fasse miséricorde! En effet, Mahmoud expira moins d'un an avant cette époque,

\*Le sandhé des Indiens précède le nouvoux (premier jour de l'année) des Perses de douze jours, et il fut postérieur de dix mois Persans complets à la nouvelle de la mort du sulthen.

'Toutes ces ères présentent des nombres considérables et remontent à une époque reculée; voilà pourquoi on a renoucé à en faire usage. On emploie ordinairement les ères de Sri-Harscha, de Vikramaditya, de Saca, de Ballaba et des Gouptas.

'Les Indiens croient que Sri-Harscha faisait fouillur la terre et cherchait ce qui pouvait se trouver dans le sol, en fait d'anciens trésors et de richesses enfouies; il faisait enlever ces richesses et pouvait, par ce moyen, s'abstanir de fouler ses sujets. Son ère est mise en usage à Mahourah et dans la province de Canoge. J'ai entendu dire à un homme du pays que, de cette ère à celle de Vikramaditya, on comptait quatre cents ans; mais j'ai vu, dans l'almanach de Cachemire, cette ère reculée après celle de Vikramaditya de 664 ans. Il m'est donc venu des doutes que je n'ai pas trouvé moyen de résondre.

'L'ère de Vikramaditya est employée dans les provinces méridionales et occidentales de l'Inde. On pose 342, qu'on multiplie par 3, ce qui fait 1926; on ajoute au produit ce qui s'est écoulé du schadabda, mot par lequel on désigne le samvatsura sexagésimal. Voilà ce qu'on entend par l'ère de Vikramaditya. J'ai vu le mot schadabda cité dans le livre du Sorousou, composé par Mahadeva Djandaryna. Le procédé qu'on emploie d'abord est incommode. Si on commençait par poser le nombre 1926 au lieu de marquer sans aucun motif 342, l'opération serait plus simple : car admettons le résultat, maintenant qu'on en est au premier samvatsara, comment fera-t-on lorsque les samvatsara, se multiplieront.<sup>1</sup>

'L'ère de Saca, nommée par les Indiens Sacakâla, est postérieure à celle de Vikramaditya de 135 ans. Saca est le nom d'un prince qui a régné sur les contrées situées
entre l'Indus et la mer. Sa résidence était placée au centre de l'empire, dans la
contrée nommée Aryavartha. Les Indiens le font naître dans une classe autre que
celle des Sakya; quelques-uns prétendent qu'il était Soudra et originaire de la ville
de Mansoura. Il y en a même qui disent qu'il n'était pas de la race indienne, et
qu'il tirait son origine de régions occidentales. Les peuples eurent beaucoup à souffrir
de son despotisme, jusqu'à ce qu'il leur vînt du secours de l'Orient. Vikramaditya
marcha contre lui, mit son armée en déroute et le tua sur le territoire de Korour.

<sup>&</sup>lt;sup>1</sup> Il me semble résulter de l'ensemble du passage, que le cycle sexagésimal, non-soulement était propre à une certaine partie de l'Inde, mais qu'il était d'une institution récente. Le calcul présenté par Albyronny me fait croire qu'il commença seulement l'an 959 de notre ère,—Reinaud.

situé entre Moultan et le château de Louny. Cette époque devint célèbre, à cause de la joie que les peuples ressentirent de la mort de Saca, et ou la choisit pour ère, principalement chez les astronomes. D'un autre côté, Vikramaditya reçut le titre de Sri, à cause de l'homneur qu'il s'était acquis. Du reste, l'intervalle qui s'est écoulé entre l'ère de Vikramaditya et la mort de Saca, prouve que le vainqueur, n'était pas le célèbre Vikramaditya, mais un autre prince du même nous. [Here follows the passage quoted in original Arabic, and in the French and English versions, pp. 269, 271, vol. i.; and the consecutive extract is complete at p. 269, with the exception of the following sentence, which comes in after '241 de l'ère de Saca.'] L'ère des astronomes commence l'an 587 de l'ère de Saca. C'est à cette ère qu'ent été rapportées les tables Kanda Khûtaca, de Brahmagupta. Cet ouvrage porte chez nous le titre de Arcand.' [To this succeeds the sentence 'D'après cela,' etc.; and Albirûni, after stating his further difficulties in the reconcilement of discrepancies, and the local divergencies of the commencement of the year, concludes with the passage given in arteure at the foot of p. 269.]

### IV .- ERAS DERIVED FROM THE HIJRA.

## FASLI OR HARVEST YEARS.

We have alluded in the foregoing pages to one or two eras following the solar and luni-solar systems, which were nevertheless derived from the Muhammadan year. They are 1, the Bengálí san; 2, the Viláyatí (vulgò, Vilaity) or Umly year of Orissa; 3, the Faşlí (vulgò, Fusly) year of the Upper Provinces; 4, the Faşlí year of the Peninsula. The circumstances connected with all of these have hitherto been enveloped in some obscurity. Warren was unacquainted with the first three, except by imperfect information obtained from Calcutta. He might, however, have discovered at once their character, had he known the custom followed in this presidency of inserting the concurrent dates of all these eras at the head of every regulation enacted by Government.

The Persian almanac of the Sadr Diwani 'Adalat, from the year 1764, inclusive, has been translated by Mr. Reid, the Registrar of that court, for the use of civil officers in reducing the dates of native documents. These tables have proved very useful in comparing and proving the scales introduced into the present work, for facilitating the same operation.

Harington's Analysis of the Land Revenue Regulations, contains in a foot note (p. 176) the best explanation of the Fasli or 'harvest' years, tracing their origin to the year of Akbar's accession to the throne, or the 2nd Rabi-ul-sani, A.H. 963 (14th February, 1556): 'A solar year for financial and other civil transactions was then engrafted upon the current lunar year of the Hijra, or subsequently adjusted to the first year of Akbar's reign.' It has been by some supposed that the Bengálí san was established by Husain Sháh, one of the kings of Bengal, but the following extract from a Persian manuscript, in possession of a native gentleman at Benáres, for which we are indebted to the kind inquiries of Capt. Thoresby, Secretary of the Benáres Sanskrit College, sets the matter in a very clear light, and entirely confirms Mr. Harington's statements:—

'From the time of Amir Timur, until the reign of Jalál-ud-din Muhammad Akbar, there were three eras in use, viz., the Hijra, the Turki, and the Jaláli. The Turki era commences with the creation of the world, and is computed in cycles of twelve solar years each. In the month Muharram of A.H. 1138, five hundred and sixty-five cycles had elapsed, and the fourth year of the following cycle was in progress. Each year begins with the new moon of the month Jéth of the Hindu calendar, and the months are lunar. At the end of two or three years, as the case may be, an additional month is introduced to balance the computations by solar years and lunar months.

'The Jalali period is dated from the 5th of the month Shaban in the year 468 Hijra, under the reign of Jalal-ud-din Toghlak Shah, Ibn-i Alap Arsulan Saljuki. The year begins with the Nauroz, or the day that the sun enters the zodiacal sign Aries. There are thirty days allotted to each month, and five supplemental days are added to the twelfth month, to which at the expiration of every fourth year a sixth day is superadded.

'As the annual method of computation in the Turki era accorded with that observed by the Hindus in reckoning the years of the Samvat, it was generally used in the preparation of records and accounts, etc., but after the Emperor Akbar had extended his dominions by the conquest of Bengal, and a portion of the Dakhan, there were several modes of computing time prevalent in different parts of the empire; as the Samvat, with its lunar months and solar years; the Bengali era, in which the year began with the arrival of the sun at the vernal equinoctial point, and the months were regulated by his passage through the twelve signs of the zodiac; and the Dakhani era, which comprehended lunar months, and a lunar year beginning on the 12th of the light half of the month Bhadon. These differences occasioned a good deal of perplexity to the accountants and other public officers : at length some of them drew the attention of the Emperor to the subject, who, after deliberating with his ministers, desired that the three foregoing eras should be made to agree with the year of the Hijra 964, (963?) and that appropriate names should be given to them. Accordingly, it was decided that the Samvat in Upper Hindústán should be named Fasli, and should commence with the month Aswina (Kunwar), in which the collection of land-tax for the following seasons is first made. The era introduced into Bengal was denominated San-i Bengdia, and the year was continued there, in the period of its commencement, on the sun entering Aries, as heretofore. This was likewise the case in the Dakhan, where the new era was called Vilayati, because it was received from the Viláyat of Hindústán, and the annual revolution continued to be dated on the 12th Bhadon. These three eras therefore owe their origin to the fint of the Emperor Akbar, and they are formed upon the basis of the Muhammadan epoch, but the annual revolutions accord with those of the eras which they superseded."

Thus the object of Akbar was merely to equalize the name or number of the year all over his vast empire, without interfering with the modes of subdivision practised in different localities: and this explanation will materially simplify the understanding of the subject of the four harvest years. The Bengálí san, the Viláyati san, and the Tamil Faşlí year, may be always considered identical in character with the Şáka solar year, while the Faşlí of the western provinces may in like manner be classed with the luni-solar Samvat there current.

The reason of a year's variation in the denomination of the Bengálí san will at once be seen on comparing the commencement of each.

The Hijra year 963 began on the 26th November, 1555, N.S.

The concurrent Faşli year, 963, began on the 1st of the lunar month A'san (A'swina), which fell on the 10th September, 1555.

Th Viláyatí year 963, on the 1st of the solar month Asan, which occurred on the 8th September, 1555.

But the Bengálí san 963, began on the 1st Baisákh falling within the same Hijra year, which was necessarily that of the 11th April, 1556.

The number 592 must be added to convert the two first eras into Christian account, if less than four of their months have transpired, and 593 years, if more; also 593 for the first nine months of the Bengálí san, and 594 for the rest.

# PASLI ERA OF THE DAKHAN.

The Fasli year of the Peninsula, however, differs two years from the preceding, being apparently in advance of them. This can only be caused by its having branched off from the Hijra as a parent stock at a later period.

The year 1240 of this Faşlí begins in July, 1831, or in the second month of 1247 Hijra. The difference is seven years, which converted into days, and divided by 11, the constant acceleration of the lunar year per annum, gives a period of about 230 years back for the epoch sought. But as the Faşlí only drops behind, one year in 33, a latitude to that extent may be allowed in fixing the epoch of its foundation. In fact, we learn from Grant Duff's 'History of the Marhattas,' that this Dakhaní era owes its origin to the Emperor Sháh Jahán, who, after bringing his wars in Maháráshtra to a close in 1636, endeavoured to settle the country, and introduce the revenue system of Tudor Mul, the celebrated minister of the Emperor Akbar. Along with the survey and assessment naturally came the 'revenue year,' which, commencing as usual with the current Hijra year of the time, has now diverged from it seven years, as above-mentioned.

The constant for converting this era into Christian years is + 590. The year is, or ought to be, sidereal, but the Madras Government has now fixed its commencement to the 12th July. Its subdivisions are however, little attended to, the sole purpose of its application being in revenue matters.

# THE TARIEM ILAHI, OR ERA OF ARBAR.

This era was established by the Emperor Akbar, in the thirtieth year of his reign, (a.m. 992, a.d. 1584,) many years after his introduction of the Faşli era, as Abú'l-Fazl says, 'in order to remove the perplexity that a variety of dates unavoidably occasions. He disliked the word Hijra, 'flight,' but was at first apprehensive of offending ignorant men, who superstitiously imagined that this era and the Muhammadan faith were inseparable. Amír Fatteh Ul-láh Shírází corrected the calendar from the tables of Ulugh Beg, making this era to begin with his majesty's reign. The days and months are both natural solar, without any intercalations. The names of the months and days correspond with the ancient Persian (see page 143). The months have from 29 to 30 days each. There are no weeks, the whole 30 days being distinguished by different names; and in those months which have 32 days, the two last are named ros o shab (day and night), and to distinguish one from the other are called first and second.'

The epoch of the Hahf era consequently falls on Friday the 5th Rabi-ul-sanf, A.H. 963, corresponding with the 19th February, 1556, s.s. which number must be added to bring its dates into Christian account. It is used on inscriptions, coins, and records of Jahángír's and the following reigns, but generally coupled with the Hijra date.

# THE SHAHUR (VULGO, SHUHOOR) OR SOOR ERA OF MAHARASHTRA.

There is another era of Muhammadan origin still employed by the Maráthas of the west, entitled the Shahúr or Soor-san, a corruption of the Arabic word shahúr, (plural of shahr, 'month,') and literally meaning the 'year of months.' An account is given of this era in Capt. Jervis's 'Report on the weights and measures of the southern Konkan.' That officer affirms on some Hindú authority that it was introduced on Thursday, the 6th June, 1342, a.D., in the Hijra year 743, while others place it a year sooner: but the computation of its agreement with the Hijra year, says Capt. Jervis (in the same manner as was followed in ascertaining the epoch of the Faşlí year), shews it to have begun when the 745th Hijra (a.D. 1344) corresponded with the 745th Shahúr san.¹ It was probably adopted on the establishment of one of the Muhammadan kingdoms in the Dakhan under the reign of Tughlak Sháh.

<sup>&</sup>lt;sup>1</sup> This correspondence would continue for several years before and after, so that the Hindú account may probably be correct.

The years of this era are denominated after the corresponding Arabic numerals.

The following examples will be sufficient to explain the system; the names are, however, corrupted in pronunciation by the Maráthas:

```
1 Ahadi.
               10 Ashar,
                                100 Mdyat or Maya.
2 Inni,
               20 Inhrin,
                                122 Isna-askrin máyat,
3 Salas.
               30 Salátin,
                                200 Miatin.
4 Arba,
               40 Arbain,
                                300 Sule mdyat.
5 Khams,
               50 Khamsin,
                                450 Khamsin-arba mayat.
6 Sita.
               60 Sitain.
                                1000 Alf.
7 Saba,
               70 Saba-in,
                                1100 Mayat-o-alf.
               80 Samdnin,
8 Samoni,
                                1230 Sulasin mayatin-o-alf.
               90 Tisa-in,
9 Tisa,
                                1313 Sule-ashar suls-moyat-o-alf (A.D. 1834).
```

The correspondence with other eras may be seen from the following brief rule for their mutual reduction:

If the given date fall after the sixth month of the Shahur year, it will occur in the next ensuing Christian year; and after nine months, in the next Saka or Samvat year; because the Shahur year begins in June, at the sun's entrance into the lunar mansion Mriga (Mrigasírsha.) It is not stated whether its subdivisions follow the Hindu or Arabic system, but the former may be taken for granted.

### JALUS YEARS.

There is still another system of recording time to which some allusion is requisite under this head, as it depends, like the foregoing, upon the Hijra reckoning. During the dynasty of the Mughal Emperors, the year of the reigning monarch was usually inscribed, as is the case in most countries, upon all documents of a public nature. It was also particularly noted on the gold and silver coinage, where indeed it continues to be inserted under the Company's rule, although the date has long remained unchanged. The Hijra date was frequently added.

The jalús-san (san-i jalús) necessarily follows the Hijra reckoning, and the same tables will answer for the solution of them when the accession day of each sovereign is known. Those of the Mughal Emperors have accordingly been inserted among the festivals of the Muhammadan lunar calendric scale, where an explanation will be given of their application. A list of the sovereigns of Dihlí, in chronological succession, will also be found among the tables of dynasties.

It seems that the 'jalús-san' has been constituted a fixed era in

the Southern Konkan, commencing with the year of Sáliváhana 1578, (A.D. 1656), and running on henceforward in the ordinary solar manner contrary to all precedent in other parts of India. This epoch, derived from Capt. Jervis' 'Report,' is anterior by two years to the coronation of Aurangzeb; but it corresponds precisely with the accession of Sultán 'Ali 'Adl Sháh II. to the throne of Bíjápur; from which circumstance it doubtless drew its origin, although from subsequent disturbances, its correction was lost sight of.

In general it should be borne in mind that the duration of a Muhammadan monarch's reign, as well as of his life, is reckoned by lunar years; and that both consequently require correction when compared with other dates.

# RAJ-ABHISHEK ERA OF THE MARATHAS.

Only a few years subsequent to the establishment of the Jalús era last mentioned, another of the same nature was set up by the Maráthas, or at least it has since come into use, founded upon the rise of their power under the famous Sivají. We have the authority of Grant Duff for fixing the date of Sivají's ascending the throne, on the death of his father Sháhjí, in the year A.D. 1664, when he first assumed the title of Rájá, and struck money in his own name.

To convert the Ráj-abishek (meaning 'ointment of the king') into the Christian era, 1664 must be added. The division of months probably accords with the Sáka system.

### RECAPITULATION.

The whole of the eras mentioned in the foregoing imperfect account are, for the convenience of reference, collected below in a tabular form, with the equation for their conversion into the ordinary reckoning of Europe. It has been deemed preferable to insert the year of the Christian era, corresponding with the first nominal year of each of the Indian eras, which will here and there produce an apparent variation from the epochs or initial dates given in the foregoing sketch. (See note, p. 165.)

<sup>1</sup> Jervis's 'Report,' p. 99.

# TABULAR VIEW OF ERAS USED IN INDIA, WITH THE EQUATION FOR CONVERTING THEM INTO CHRISTIAN DATES.

1.35	1000000				
DEMONIN.				MENCEMENT.	EGUATION.
The Kali-yuga (vu	igo, Kui-jūg) com	mences	Friday		
				3102 B.C	
The first year	being reckoned as	0, the	year 1	accords with	f (after Christ)
				3101 в.с	
Era of Buddha's bir	th, by Chinese acco	unt	*******	1027 в.с.	not used,
Ditto, his sciredna,	in India, Ceylon, .	Ava, S	iam, et	c. 1st year -	6 545-B-
				543 n.c	
Jain era of Mahávír	ñ		1st	year 629 n.c.	not used.
Samvat (Sumbut)	of Vikramáditya, y	ear 1	= D M	arch, 26 n.c.	— 56 <del>1</del>
Şûka (Shuk) of Sali	ivahana=equinox			79 A.D	
Parasurama cycle o	of 1000 years (1st	year	of 4th	eyele - Sept	
	경마(기) (1) 보기 (1)			825 A.D	
Grahaparivrithi dit	to, of 90 years (	1st ve	ar of t		
	100001000000000000000000000000000000000	•		1777 A.D	
Vrihaspati (Jupiter	s) evele of 60 year	ra (est	ablished		
" 1st year o	of 84th cycle ( Sur	va-Side	lhanta '	1-1796 A.D.	+1795
200 CONTRACTOR	83rd cycle (Telin				
9 9	14th cycle (Tibet				
19 19	76th cycle (Chine				
Turkish or Ighari	swele of 12 years	minaid	on with	Tibeten and	+1803
Telings Invien	cycle, in its initial	*****	ca with	Tiosean and	10.00
Ralabbi Samuet of S	Commath T	year	_ M	-L 010	disused
Balabhi Samvat of S				- A-10 CHE LOSE	
Siva-Sinha Samvat ( Burmerse era of Pro		71	- "	1113 A.D.	
		- 17	- 11	79 A.D.	
	poch	77	= "	639 A.D.	
	a (see Buddha)	"	- 11	543 m.c.	2000
Torre or All est-	och	19	= "	691 n.c.	
Java era, Aji Saka		11	= "	74 A.D.	
		**	= ;,	81 A.D.	
Nipal, Newar era		19	- "	870 A.D.	+ 809
Tibet, me-kha-gya-t		. 12	= 19	622 A.D.	
Hijra, lunar year		begin	a July 1	16, 622 A.D.	see tables
Era of Yezdijird, Pe			June 1		
Jaláli era of Malik-			Marc	h, 1079 A.D.	+10781
Tári <u>kh</u> -i iláhi of the			Marc	h, 1556 A.D.	100000000
Faşli, revenue year	r of Upper India	(estab	lished	in 1556 A.D.	) + 5923
" "	of South India		55	1638 A.D.	
	of Orders		10	1556 A.D.	
Viláyatí "	or Orissa				
	of Orissa of Bengal		***		
Bengali-san "	of Bengal		**	1556 A.D.	) + 5931
	of Bengal far&thas	(intr	" roduced	1556 A.D. in 1344 A.D.	) + 593½ ) + 599

## DIRECTIONS FOR USING THE CHRONOLOGICAL TABLES.

Most persons consulting the following tables will wish to be spared the perusal of the description of the origin and formation of the several eras comprised in them, and will be desirous only of obtaining their object as directly as possible, namely, the conversion of a date expressed in either the Christian, Hijra, Samvat, Şáka, Kali-yug, Vrihaspati, Parasuráma, or Grahaparivrithi system, into the corresponding day of any other of the same series. The present rules will be confined to this object. They are partly repeated, also, with examples, on the pages of the several yearly scales, for the convenience of more immediate reference.

RULES FOR ANY DAY OF TIME FALLING WITHIN THE RANGE OF THE GENERAL TABLES XIII. AND XIV., NAMELY, FROM A.D. 622 TO A.D. 1900 FOR THE HIJRA, AND FROM A.D. 1600 TO A.D. 1900, FOR THE HINDÓ BRAS.

### HIJRA KALENDAR.

 To find the Christian date corresponding with any Muhammadan date of the Hijrs era,—say the 17th of Rajab 1201 A.H.

Take the initial day of the year 1201 from Table XIII., which will be found to be 3 (or Tuesday) the 24th October, 1786 s.s. Then set the first day of Muharram on the edge-scale of Table V. to the 24th October on the proper column of the Christian era, Table XII. Opposite to the 17th Rajab will be found to stand the 5th May (1787), which is the day required.

To find the Muhammadan day agreeing with a given Christian day,—say the 17th March, 1804 (a leap-year).

Find from Table XIII. what year of the Hijra commences next before March, 1804, namely, 1218 A.H., beginning on Saturday, the 23rd April, 1803. Set Scale V. to this date, and read off opposite to the 17th March, the 4th of Zilhejeh; but because 1804 is a leap-year, and the day falls after the end of February, one day must be added to the scale, and the reading will then be the 5th Zilhejeh, which is the day sought. Should the day of the week be also required, set the 1st Muharram to Saturday on the hebdomadal scale in Table XII. and read off 5th Zilhejeh, Saturday.

3. To find the Christian year corresponding with the jalús of any of the Mughal Emperors of Dihlí,—for instance, the 19th year of the reign of Sháh 'Alam?

In the column of Festivals in the Hijra kalendar, page 182, it will be seen that Shah 'Alam came to the throne on the 1st of Jumadi I, A.H. 1173. Adding to this 19, as above, the general Hijra Table shows that A.D. 1192 commenced on the 30th Jan. 1778:—the 19th jalus therefore (by the scale) will be seen to commence on the 29th May of the same year.

 To convert a Hijra date into any of the Hindú eras corresponding to the given Hindú date.

In these cases the intervention of the Christian scale is required, because the initial days of the Muhammadan years are given only in the latter system. When once the English day is found, the rules already prescribed will answer for determining the remainder of the problem.

HINDU SOLAR OR SIDERRAL KALENDAR,

 To convert a date in the Kali-yug, Ṣáka, or Bengálí-san eras, into the corresponding Christian date,—for example, the 1st of Jéth B.S. 1199 = K.Y. 4893 = SA'K. 1714.

By Table XIV. the 1st Baisákh, K.Y. 4893, of the Hindú solar era coincided with Tuesday, the 10th April A.D. 1792. Therefore setting the index of the Hindú solar scale, Table X., to that day, on the proper column of Table XII.:—the 11th of May will be the resulting date.

(From the astronomical formation of the Hindú months, an error of a day in the civil reckoning will sometimes occur, which the kalendar X. is unable to correct, without a computation of the elements of the beginning of the particular Hindú month by the rule hereafter laid down, page 178).

 The converse of the above proposition hardly requires a separate explanation.

Example: Required the Hindú solar day corresponding to the 20th December, 1813?

The 20th December, 1813, must fall in the Kali-yug year, 4914 (s.s. 1220), commencing, by Table XIV., on Sunday, 11th April, 1813. Setting, therefore, the index of the Hindú solar year to the 11th April, the 20th December will be found to accord with the 7th or 8th Pausha, 4914 x.v. (The Viláyatí or Dakhaní reckoning gives the latter, while the Bengálí gives the former day.')

### PESTIVALS.

The Hindú Solar Kalendar contains but three festivals of any importance, namely, Charak-púja, on the last day of the year (or entrance of the Sun into the first sign mesh, of the Sidereal Zodiac), called also the Satwa-sankránta:—the first day of the Viláyatí year of

It should be remarked that Warren's 'Kâla Sankalita' gives the beginning of the Hindú solar year invariably one day earlier than the reckoning followed in the tables of the Sadr Diwâni. This arises from his using the Tamil year of the 'Arya Siddhânta,' while the 'Surya Siddhânta' is used in Bengal. We have not ventured to alter the tables, but the correction may be borne in mind.

Orissa and of the peninsula in general, viz., the autumnal equinox, or rather the Sun's entrance into Virgo:—and the Makar-sankránta, on the last day of Paushya, when the sun enters Capricornus. The Christian day on which these occur will be shewn by the scale when the index is adjusted for the given year.

### LUNI-SOLAR KALENDAR.

 To reduce a given date in the Samvat of Vikramáditya, or in the Faslí of the Upper Provinces, to the corresponding approximate Christianday,—for instance, the 2nd Súdí Bhádon(súdí Bhádra) 1861, Samvat, or the 16th Bhádon, 1211, Faslí.

By the general Table XIV., column 15, the Samvat year 1861, commenced on the day after the last conjunction, which fell on Sunday, 11th March, 1804.

Setting, therefore, the index of the luni-solar scale of Table VII. (or the new moon of the month Chaitra), to the 11th March, we find the 16th Bhádon (Bhádra) falls on the 7th August. But the year 1861, Samvat, is an adhiks, 'lound,' or intercalary year; it is necessary, therefore, to find out what month is repeated, otherwise the denomination Bhádon may be a month erroneous. (N.B. It is always one of the first five months or the last month of the lunar year that is repeated).

 To ascertain what month will be repeated in the Hindú lunisolar year,—taking for example the year 1861.

Set the index of Table VII. (the new moon of Chaitra) to the date of the beginning of the luni-solar year in the solar kalendar, taken from column 16 of the General Table XIV. namely, in the present instance, the 1st of the solar month Chaitra, which month (by column 14, of Table XIV, will contain 31 days.)

It will immediately be seen, that a second new moon will fall on the 31st of the same solar month Chaitra; the lunar month Chaitra therefore will be repeated, and the lunar month Bhádon (Bhádra) will fall a month later, coinciding with the ordinary month Ksan¹ (Kswina.)

Therefore, in reading off the date opposite to the 16th Bhádon—
(A'san,) the English date will come out the 6th September, A.D. 1804, which is now correct.

The converse of this proposition is equally simple, regard being
paid to the character of the luni-solar year, and the month to
be repeated (if any) being first ascertained by the rule just
explained.

<sup>&</sup>lt;sup>1</sup> The data for this example are taken from Warren; but strictly speaking the intercalation in this case should have belonged to the preceding year, since the definition of the commencement of the new year states that it begins with the last new moon antecedent to the first Baisakh of the solar kalendar.

Example: Find the approximate luni-solar day for the first July, 1812.

By the General Table XIV. the Samvat year 1869 begins on the day following the 13th March, 1812; it is an Adhika or intercalary year, beginning on the 3rd of the solar month Chaitra, which contains 31 days.

Setting the luni-solar index accordingly to the 2nd of Chaitra on the solar kalendar, the scale informs us at a glance that two new moons will fall within the solar month Baisákha; the lunar month of that name will consequently be repeated, and the denominations of the following months will be altered accordingly.

Now, set the luni-solar index to the 13th March, and read off opposite to the 1st July, the 6th (Sáwan) Asárha, 1869, which is the approximate date: (in reality it fell on the 7th, for no fixed scale can represent the variations of the lunar month correctly to a day in all cases.)

BULES FOR INTERCALATION.

It is not however necessary, within the limits of the General Table, to resort to the juxtaposition of the luni-solar and solar scales, to ascertain what month will be intercalated, since the initial letter of the month required is given in the 14th column of Tab. XIV.: thus AV signifies Adhika Vaisákha, or that the month Vaisákha will be repeated: the whole of the abbreviations which can occur, and the general order in which they do occur, are as follow:

```
These interestations happen
respectivelywhen
the lumi-solar
year begins on
the
AA Adhika Asarha
                                                                  5th or 6th of Chaitra (sol. calendar.)
AV
                   Vaisdkha
                                                                  2nd or 3rd ditto
          19
AB
                   Bhádra
                                                                  9th or 10th ditto
          **
                                                                  6th, 7th, or 8th ditto
4th, 5th, or 6th ditto
9 or 1st ditto 1
AS
                   Srdvana
          11
AJ
                   Jyestha
          10
                   Chaitra
AC
                                                                6th, 7th, or 8th ditto.
                   Breivana
```

In this table, the last column shows what commencing day of the Samvat year will cause particular months to be intercalated: when therefore, by the rule just given, this day has been expounded, the existence and position of an intercalation is also determined for the given year: thus, in the Samvat year 500, as the initial day falls on the 4th of Chaitra, there will be an intercalation of the month Jyestha.

Some ambiguity, however, will still remain as to the actual month to be repeated, since, if Vaisákha had 32 days in that year and Chaitra 31, new moons would have occurred on the 3rd and 32nd of Vaisákha, and consequently the latter month would have been the one repeated.

If Chaitra be accounted the first month of the year: but if it be called the last month, then the interestation of Chaitra occurs when the preceding luni-solar year begins on the 10th or 11th Chaitra solar kalendar. Both cases are met with in the tables, as though the matter were indifferent to the Hindú astronomers.

To overcome this unavoidable degree of uncertainty, the problem must be worked out systematically with the elements furnished by the tables of Solar and Lunar Ahargana, but such an extreme measure will seldom or never be required in ordinary cases.

### LUNAR PESTIVALS.

The days on which the principal lunar festivals of the Hindús occur being inserted in the kalendar in Table VII, will be solved in European dates by simple inspection when the scale is once adjusted. It is only necessary to bear in mind that in an intercalary year such feasts as occur in the double month will be confined to the nij or proper month; and as the Adhika or intercalary month falls always in the middle of the 60 days (see page 155), the festivals will either happen in the first or in the last fifteen days of this period. All the festivals subsequent to it will be shifted forward one lunation along with the names of the months.

### TO CONVERT SAMVAT INTO SÁKA DATES.

For instance what is the Sáka day for the 6th Asara, 1869, Samvat? Set the initial day of the luni-solar scale to the date of the solar Chaitra, given in the General Table as before (the 3rd Chaitra, or rather the 2nd, because the same General Table says, that Chaitra has 31 days): then (because also it is an intercalary year) read off opposite to the 6th (Sáwan) Asárha on the lunar scale,—the 19th Asárha, solar reckoning, which will be correct by the Dukhaní account. The Bengálí account is in all cases one day earlier. The Sáka year corresponding to Samvat 1869 by the General Table is 1726.

The same process precisely must be followed to find the Samvat from the Saka date; only reversing the readings.

### CYCLES.

For the years of the several cycles of Parasuráma, Grahaparivritthi, and Vrihaspati, simple inspection of the table will be sufficient to find corresponding dates, as the sub-divisions of these years are seldom required. The names of the cycle of Jupiter (Vrihaspati) for the numerals in column xi. will be found in Table IV., page 163.

Note.—It should be borne in mind, that the natives, in speaking or writing a date in simple years, always express the number of years expired, not the current year, as is the custom in Europe. When they mention the month, therefore, they mean the month of the following current year: but as the numerical denomination or the Hindú year remains unchanged throughout it, no thought need be taken of the distinction of expired years, unless where a calculation has to be made from an initial epoch. In common parlance they may be treated like the current years of any other system, as being more consonant with our ideas, and less liable to cause mistakes in transferring dates to and fro.

### RULES FOR DATES TO WHICH THE TABLES DO NOT EXTEND.

There are two methods of solving Hindú dates anterior to the tables: 1st, by finding the time expired since the Kali-yug epoch (which commenced on Friday, the 18th February, of the year 3102 s.c.); or, 2nd, by starting from some more modern epoch, the correspondence of which has been previously established. The latter is the most convenient method, and a Table of such epochs (IX.), taken from the 'Káli Sankalita,' has been consequently inserted for the purpose of applying it in page 188: thus—

Let it be required to find the Christian date, Julian style, for the 15th Pausha,

622 Saka ? (623 current.)

From Table IX. it appears that the Saka year 622 began on Saturday the 20th March, 700 A.D. Set the Index of the Hinda solar year scale to that day, and read off the 15th Pausha - 6th December, 700.

But as the Hindú months may vary in length a day or two, this result (if requisite) may be verified by finding the day of the week of both kalendars: thus—

마이지 않는데 하이 아이를 즐겁지만, Profession	D.	G.	P.
1. Extract from Table IX. the root of the epoch	(6)	05	50
Add from Table X. the collective duration to the 1st Pausha	(1)	18	37
And 15 days to the 15th of the month	(15)	00	00
The sum, rejecting sevens, is(Monday)	(1)	24	27

2. By the Dominican letter Table XI, of p. 190, the year 700 a.n. will be found to have commenced on Friday; whence (by the scale of days in the second part of the same table) the 6th of December will fall on Monday, which day, agreeing with that just found, the first computation is proved to be correct to a day.

Answer: Monday, the 6th December, 700 A.D.

Example 2. What is the Hindu solar date corresponding to the 12th June, 538 a.p.

The epoch for the expired year 3601, x.v., or \$4ka 422 (the nearest in occurrence to the year 538 a.p.) is ... .......... (6) 21 40 on the 18th March.

Add from Table VIII, 30 years ... (2) 45 46

The year Kali-yug 2639 began ... (5) 10 58, or on Friday nearest the 18th March, 538.

Solve the Dominical day, by which Friday proves to be the 19th March.

Set the index of the Hindú solar scale according to the 11th March in the Christian kalendar, and read off, the 12th June = 23rd Asarha.

Now, by the Dominical letter, the 12th June falls on a Saturday;

And for the Hindú year we have as above....... (5) 10 58

Add collective duration to the first of Asarha ..... (6) 19 44

And the 23 days of Asarha...... (23)

Making the 23rd Asarha fall also on.............. (6) 30 42 = Saturday; which

proves the operation to be correct, and the result to be, Saturday, the 23rd Asarha year 460 Saka.

Example 3. Expounded from the Kali-yug-epoch. On what Christian day fell the 18th Magha, 4903 K.v. ?

The proximate Christian year is 4903-3101 = A.D., 1802 current. Take the contracted Ahargana from Table VIII,. viz. -

Year 4904 K.Y. begins (astronomically), (2) 32 07, counting from Friday, or on Sunday: and as the fraction is more than 30 gharis, 3 the civil year will commence on the following day, or on Monday: this is called the suta diese, and must fall, according to the General Table, somewhere near the 12th April. By the Dominical Table, then, it will be found that Monday corresponded with the 12th April of that year.

The remainder of the operation may be performed as before, either by the scale, or by the collective roots of the months; by both the answer comes out=Sunday, 30th January, 1803.

### SAMUAT AND PASLI DATES ANTERIOR TO THE TABLES.

Where the tables do not give the initial day of the luni-solar year. it may be found from the table of Lunar Ahargana in p. 186, by the following simple process:-

- Find the number of years clapsed since the commencement of the Kali-yag.
- 2. Extract the number of days corresponding with the clapsed period of Hinda solar years above found, from Table VIII.
- 3. Extract also the number of days elapsed in the luni-solar period corresponding. from Table VI.

Subtract the latter from the former, and the result is the number of days by which the luni-solar anticipates the solar year: if the remainder, however, exceed one lunation, or 29d. 31g. 50p., that amount must be deducted from it; because it is thence evident that an intercalary month would have intervened; the rule for the luni-solar year being, that it shall commence from the last new moon preceding the solar year.

NOTE.-For a correspondence of the luni-solar with the European date, it will in all cases be necessary to expound the beginning of the Hindú solar year in the first instance.

Because the moment of the conjunction of the planets at the Hindú epoch occurred so many days and hours after the seve of the weekly reckoning. See note in page 188.

The civil year begins at sunrise: the astronomical at noon.

1st, The number of sols	r days elapsed to	the end of the	Kali-yug year 4704
-------------------------	-------------------	----------------	--------------------

will be 4000	1461035	61	33	
0	255681	07	46	
4	1461	02	06	
	1718177	11	25	
Deduct Sodhyam or constant	2	08	51	
Days elapsed, or root of K.Y. 4704 2nd. The number of luni-solar days elapsed, by	1718175	02	34	(Tuesday).
Table VI, will be 4000	1461025	50	19	
700	255675	49	49	
4	1446	59	56	

Days elapsed, or root of Samvat 1660 ..... 1718148 40 04

Deducting this from the above, the remainder 26 is the number of days by which the luni-solar year precedes the solar, the last conjunction of the sun and moon falling on the (30 — 26 =) 4th of Chaitra: one day must, however, in all cases be added to this result, as the luni-solar year begins on the day after the conjunction of the sun and moon.

The 1st Baisakh, solar year 4704 K.Y. occurs on Monday, the 7th of April, 1603 A.D., therefore deducting 25 days as above stated, the year 1660 Samvat began on Wednesday, the 12th-March, 1603 A.D.

Setting the luni-solar scale accordingly to that day, any intermediate day of the year may be found. having previously determined whether any and what month of the year will undergo repetition or expungement, by the rules laid down in page 178.

Example 2. What day of the Samvat era corresponds with the 1st January A.D. 1 o.s.?

The year A.D. 1 = Kali-yag 3102 = Samvat 58; but as these years begin in March-April, the 1st January will fall in the preceding years respectively, viz. K.Y. 3101, and Sam. 57.

For the initial day of the solar year we have, epoch of 3101, by Table IX. = 14th March A.D. 0.1

The Samvat precedes the solar year by 22 days and consequently begins on the 20th February, a.n. 0., and by the formula in page 177, it will be a 'lound' year, repeating either the month Bhadra or Sravana.

Setting, therefore, the index of the luni-solar kalendric scale to the 20th Feb. in the appropriate Christian scale, the first of January will be found to fall on the 5th of Magha (Phalguna) or 'Samvat 57, Mogha-badi panchemi.'

<sup>&</sup>lt;sup>1</sup> Some chronologists make the year 0=1 n.c., and indeed this is the common mode of reckening.

It is impossible, within the compass of the present practical rules, to furnish methods for correcting the approximate lunar days solved as above: for such a degree of accuracy, recourse must be had to Warren's, Jervis', or Bentley's tables; but as the lunar equations seldom exceed half a day in time, the moon's mean place will always be within one day of the truth.







MUHARRAM

METHOD OF ADJUSTING THE CALENDRIC SCALES.



Lay the book open on a table: take the two required pages in the hands and depress them with opposite curvature. They will then bear side motion so as to adjust the respective indices.

N.B.—The duration of a day is represented by the space between two lines on the scale, not by the lines themselves.

The Muhammadan Year is of the most simple construction, consisting of twelve months of thirty and twenty-nine days alternately, with an intercalary day added to the last month on the 2nd, 5th, 7th, 10th, 13th, 16th, 18th, 21st, 24th, 26th, and 29th years of a cycle of 30 lunar years. For further particulars, see page 144.

APPLICATION OF THE SCALE.

To find the European day corresponding to any Hijra date, or vice versa?

From the General Tuble find the day on which the Hijra year commences, to which set the index of the present scale (or the 1st day of Muharram), in that one of the columns of the European calendar, which may be most convenient for the purpose.

EXAMPLE.

Required the English day corresponding to the 12th Shiban, A.H. 1228?

By the General Table of the Hijra, the year 1228 commenced on Monday, 4th January, 1813: setting therefore the 1st Muharram to that day in the outermost column but one in page 191, there will be found opposite to the 12th Shaban, the 10th of August, which is the day required.

To find the name of the day, set the index to Monday in the column of weeks and days; the 12th Shaban will be found to fall on Tuesday.

The jalús years of the Mughal Emperors must be converted into Hijru years, by adding the initial years in each case, found in the column of 'festivals,' and then expounded as in the example just given.

New year's day, 1.

Fête of Hasan and Hossin called the 'Muharram,' kept by Shias, whole month

Jahándár Sháh, j. 14th, 1124.

Akbur, jalus 3rd, 963.

Shih A'lam, jalûs 1st, 1171, Ahmad Shih, j. 2nd, 1161. Humayun, jalûs 9th, 937.

Aurangefb, jalüs 1st, 1068. Shiih Jahan, jalüs 8th, 1037.

Jahanger, jalus 24th, 1014.

Shah-i-barkt, full moon.

Ramzin begins, > or lst, Bebur, jalūs 5th, 809. Akbur 11., jalūs 6th. 1221. A'lomgir 11., j. 10th, 1167. Taimūr, jalūs 12th, 771.

Ecd-ul-fitr. ) or lat.

Bakr-eed, 9th.

Muhammad Sh&h, j. 25th, 1131 Bahādur Sh&h, j. 1st. 1118.

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Table VI.—Ahargana Chandramana, or Luni-solar Periods, reckened from the beginning of the Kali-gug, according to the Surga Siddhanta, to find the root, or commencement of any Luni-solar Year.

	The days in	this account	are reckaned	from Thursday.
--	-------------	--------------	--------------	----------------

Years	Lu	ni-solar	Perio	ds.	Years	Lu	ni-solar	Perio	ds.	Years	L	unt-solar I	reind	и.
1 2 3 4 5 6 7 8	(4) (1) (0) (4) (1) (6)	0. 354 708 1092 1446 1801 2185 2539	6. 22 44 37 50 21 15 37	P. 01 03 54 56 57 48 50	20 30 40 50 60 70 80	(0) (0) (1) (0) (1) (1)	7294 10055 14588 18249 21911 25543 29205	03 50 66 54 41 37 45	r. 19 53 37 11 46 31	300 400 500 600 700 800 900	(1) (4) (1) (4) (0) (4) (4)	109558 146987 182617 219146 255675 292205 328704	0. 28 49 09 29 49 10 58	r. 58 07 21 35 49 04 27
	(2)	2893	59	51	90	(2)	32867	32	40	1000	(2)	365234	18	42
9	(1)	3277	53	4.3	100	(1)	36499	48	24	2000	(6)	730498	09	13
10	(6)	3632	15	44	200	(5)	73029	0.8	38	4000	(6)	1461025	50	19

To find an what day of the Solar month, Chaitra, the beginning of any lund-volute year falls.

- From table VIII. of Solar Akaryana page 188, extract the number of solar days classed for the period of the Kuli-yag.
- 2. From the present table extract in a similar way the number of days clapsed in the same lumi-solar period.
- Subtract the latter from the former, and if the remainder exceed 291 days, then subtract that amount so that the remainder shall always be less than 291.
- 4. This remainder is then the number of days by which the lunar year precedes the solar, and, counted back from the 30th of the solar mouth, Chaitra, shows the date in that mouth with which it commences.

For an example, see p. 181.

SPECIMEN OF A LUNAR MONTH PROM THE HINDÉ CALENDAR FOR THE INTERCALARY MONTH CHARRA OF THE 4924VH LUNI-SOLAR YEAR OF THE KALI-YUU.

Adhika Chaitra, or Phalguna-itiek.

Sukla-Puksha, or Sudi.	Krishna-Paksha, or Badi.				
Assessed.  1 Pereliand. 2 Butta. 2 Butta. 3 Teltya. 4 Casturthi. 5 Fearm. 6 Shashi. 7 Septand. 8 Ashtand. 11 Picalasi Ashaya. 12 Dunkasi. 13 Triadasi. 14 Chaturhad. 13 Present.	1 Prothestic 2 Buitin. 2 Training. 4 Chatteribli. 5 Buschal. 6 Shachal. 7 Septami. 8 Addrasei adkile. 8 Addrasei adkile. 9 Kernal. 10 Bussai. 11 Prachasi. 12 Prachasi. 13 Training. 14 Chatteribai. 14 Chatteribai.				
	1252288888888888888				

This scale shows how the lunar civil day is coupled with the solar civil day in which it ends: that when two tithis end in one day, the second tithi is expunged: and when none end in a civil day, the tithi is reckoned twice; see p. 155.

VII.—HINDU LUNI-SOLAR VEAR.			N OF	(Those kept as holidays are marked *).	MONTHS.			
EXPLANATION.	p,	a.	P.	*Neveritos, year legias. Maneuntara, 3. *Râmnacemi, sudi, 9. Manunatara, f.w.			-1111	30
The divisions on the outer edge				atentinetri, J.u.	0		#	8
press mean semi-lunations, or e mean time of the moon's con- action and opposition, shewing	20	31	50	*Akskaya tritiya, sudi,3.	•	Chaite	VHNYSAM	10 3
er connection with civil time in a adjoining column of days.				Nacisiaka, sudi, 14.	0	_	A.	30
erein it will be seen that the		.00				Bysi	<b>УИХВИЛГ</b>	10
day following the conjunction. figures of this column follow ordinary reckoning of the	59	103	40	Armyo shawi, sudi, fi. *Drzero, sudi, 10. *Nirjiio, fast do. 11th. 1	0	P	CIEA.	20 2
xing and waning moon, susti				*Suán yátra, full m.	9			13
A. means awasesya, or conjunc-	85	30	30	*Rath yitra, sudi, 2.	•	Jyestha.	уницуяч	10 20
P. purnima, or full moon.				"Ula do., sudi 10. Geru-pûja : Karnghau-	0		•	-63
badi or krishns-paksha, k half of the month.				ta : J.m. Monwantara, badi, 8.	_	Ass	Nus.	90 10
the ditto.	115	60	20	*Nag-prochawi, sudi, 5.	•	Asirha.	vavay#	29
The inner column of figures es the days of the lunar months				Pabitra, 11. *Rákhi pernimá, f.m. Bhadri-krishna, 3.	0	-	-	30
sed in the Fasli year, begin- g always with the full moon.	147	39	11	*Janawesthami, badi, 8. *Nandatsoca, badi, 9. Yugadgu, badi, 13.		Száva	MITADILA	10
The names of the months fol- the same rule, beginning with	08	n	30	Manuautara, eudi 3. Anantachaturdasi, s.14.	0	P	IIA.	20
full moon; so that the Samvat r begins in the middle of				*Makaleya, 15 days of b.	9	F <sub>CC</sub>		46
nitra. The names in capitals give the	177	TI	01	*Durga-phjä,sudi,15 d. ) *Käziilla, 10 days.	•	Bhadra	VKAINV	10 2
oths as they occur in an ordi- y year.	~ i			Bijai desemi, s. 10. Bharot miláo, s. 11.	0	_	-	23
When a month is intercalated, akes the name of the pre-	U			689		A	K.A	10
ng month; and all the subsc- nt months, and festivals cor-	206	42	51	*Diwâli (Kali-puja.) *Bhaid\$i, sudi, 2. *Jogaddhâtri, 9.	•	seina.	KAHTIKA	29
onding, are shifted forward lunation. In such cases the	-3		9	Kartik-pernina.	0	_	-	35
and column of names must be d from the intercalated month eards.	236	14	41	Bhairwa, badi, 8.	•	Karti	AGEAR	10
RULE				Pisáchusochun, sudi, 14.	0		NA.	20 29
find what month is to be re-				Mameantara, badi, 8,	0	Α	4	J.
cuted in an interculary year? Set the index, or navoratra to	265	46	31		0	Agrochen	PARSHA	10 21
date in the solar month Chai- of the next page on which it				"Ganish chatarthi, b. 4.	0		-	30
s by the General Table, column Then cast the eye down the ic, and observe whether and in	205	18	21	Jagódya, 15.		Pansha.	манна	10
at solar month two new moons ar: that month will become		275)		*Sripenchawi, sudi, 5. *Ratenti, sudi 14.		14	W.	20
iller or repeated.				Prysig-assain, full m.	0		P	12
f in any solar month (Pausha Māgh) no new moon occurs, t month will be kshaya or ex-	324	50	11	*Siearôtri, badi, 14.	•	Magha	PHALIGUS	10 3
ged from the luni-solar year.				*Huli commences, s. 8.		P.	7	10
'n find the Christian day of Sumvat or Fusli date, set the ex to the expounding initial				Huli, or Dolyatra, 15.	0	Pho-	CILY;-	30 3
e in March or April, and read as usual.	854	22	#1	Parani, badi, 13. Ordinary your e (344 day)	•	*	7	

Table VIII .- Solar Ahargana, or days, gharis, and pals elapsed from the beginning of the Kali-yug, for any period of years, with the days of the week (within brackets) obtained, by dividing the collective days by 7.

Years.	Time corresponding.				Years.	Time corresponding.			Years.	Time corresponding.			
1 2 3 4 5 6 7 8 9	(1) (2) (3) (5) (6) (6) (0) (1) (3) (4) (5)	p. 365 730 1095 1461 1826 2191 2556 2922 3287 3652	0. 15 31 46 02 17 33 48 04 19 35	7. 31 03 34 06 38 09 41 12 44 15	20 30 40 50 60 70 80 90 100 200	(4) 7305 (2) 10957 (1) 14610 (6) 18262 (5) 21915 (4) 25568 (3) 29220 (1) 32873 (6) 36625 (6) 73051	6. 10 45 21 56 31 06 42 17 52 45	r. 39 46 91 16 31 47 92 17 32 94	300 400 500 600 700 800 900 1000 2000 4000	(6) (6) (6) (6) (6) (6) (6) (5) (4) (2)	109577 146103 182629 219155 255681 292207 328732 365258 730517 1461035	0. 37 30 22 15 07 00 52 45 30 01	P. 37 09 42 14 46 19 51 23 47

From any period found by this table, the constant quantity 2 days 8 gh., 51 pl. is to be subtracted, because the epoch of the Kali-yug occurred that time after the zero of the table. The days of the week are to be counted from Friday.

The solar abergons are required at length to find the beginning of the luni-solar

year, as explained in page 186, and in the text at page 181.

To find the beginning of the Solar year, however, it is sufficient to take out the figures between brackets (with the ghavis and pale, where accuracy is required) for the edd years of the century; and add them to the epoch of the nearest century in the following table as explained in page 180.

Table IX .- Epochs of Hindu Solar Years occurring in centuries before or after Christ, J. S.

To be used for finding the beginning of any year, without reference to the commencement of the Kali-yug.

European year before Christ.	Armo Kall- yug.	Epochs.	Date in March.	European year after Christ.	Anno Kall-	Sika year.	Epochs.	Date in March
1000	2101	p. 9. P. (1) 20 25	5	300	3401	222	n. a. r. (6) 37 30	16
900	2201	(1) 12 30	6	400	3501	322	(6) 29 35	17
800	2301	(1) 04 35	7	500	3601	422	(6) 21 40	18
700	2401	(0) 56 40	7	600	3701	522	(6) 13 45	19
600	2501	(0) 48 45	8	700	3801	622	(6) 05 50	20
500	2601	(0) 40 50	8 9	800	3901	722	(5) 57 55	20
400	2701	(0) 32 55	10	900	4001	822	(5) 50 00	21
300	2801	(0) 25 00	11	1000	4101	922	(5) 42 05	22
200	2901	(0) 17 05	12	1100	4201	1022	(5) 34 10	23
100	3001	(0) 09 10	13	1200	4301	1122	(5) 26 15	24
A.D. 0	3101	(0) 01 15	14	1300	4401	1222	(5) 18 20	25
100	3201	(6) 53 20	14	1400	4501	1322	(5) 10 25	26
200	3301	(6) 45 25	15	1500	4601	1422	(5) 02 30	27

From 1600 a.d. the General Table furnishes a continuation of the above epochs. Note. - When this table is used, the days of the week are to be counted from Sunday. Example.—On what day does the year 4250 K. Y. commence?

21 01 19 44 (4) 9 ditto .....

Counting from Sunday, it begins on the Thursday falling nearest to the 23rd of March, A.D. 1149. (4) 14 55, fourth, or Y

MONTHS. Tam., Ben.

VHYVSLE

VLHSSAL

BHAVANA

BHADKA

KAHTIKA

AGRAHANA

MAGHA

VKR.DTVEA

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(4)305 06 46

(3) 334 55

Maker-senkrent.

YASEI.

### EXPLANATION.

The divisions on the outermost edge of the paper show the correct astronomical lengths of the Hindu-solar months, agreeing with the quantities in the column headed Collective Duration.

The scale of days, gives the civil division of the months when the astronomical year commences at or near sunrise : it is liable to variation when otherwise; but the first and second three-monthly periods always contain 94 and 93 days respectively.

The names of the months in Bengali and Tamil, and their astronomical duration, are given in the column of months.

## BULE.

To find the European date of any day in the Kali-yug, Saka, Bengali san, or Vildyaty or Tamil eras : or vice versà.

Set the index, or 1st Bysakh, to the initial day of the Christian year extracted from the General Table, or found by means of the Table of Epochs in e opposite page; and read off the date required.

To resolve the Hinda solar date concurring with any day of the luni-solar year, Samvat or Fasli, set the index of the luni-solar scale (p. 187) to its expounded day in Chaitra and read off the day required, which will however be only an approximation, as the lengths of the lunar months vary in a trifling degree.

			1203 1203		Y.
ear begins, on ()'s entering the sidereal sign Y (wd- sha) called Satisa- sonkrant.	ty of week.	p.	ů.	P.	30 FF 52 FF
	(E)	20	55	32	107
	3-13-2				5P
					200
	(6)	62	19	44	EP.
					ĦP
					279
		- 00	**	-	27
Cark-saukrant. Shankodhura méla ut Benares.)	(2)	263	56	22	200
mante,					1879
					24
	(6)	125	24	34	
and a state of the	5.000			2214	200円
3 111207					日本
managl. \$	20	250	26	44	24
lläyati year begins, 1.		156	20	**	98
n Els	関			Ш	159
The state of					13y
Tula-soukrant.	14	186	54	06	18 p
3-3					To.
			1.62		57
	(6)	216	45	13	up-
					1879
	/1	946	18	37	12.5
	44		10		12 P
					87
					Special Control

Table XI.—To find the day of the week for any date from 5000 n.c. to 2700 A.D. First Part—for New Year's Day of any Year.

	Cer	nturio	hefin	w Chri	st.					12		Ce	nturk	es afte	r Chri	st.	
1800	4701 4000	4000 2000	4500 3800	4400 0700	3600 4301 3600 4700	4900 4200 3700 2800		0.84		N. Style.	1700 2100		1800 2200		1560 1960 2360	1000 2000 2100	
1400 500 1000 1000 1000	1300 2600 1100 1200 300	3200 2300 1800 1100 400	2000 1700 1000 300	2500 1600 900 200	2000 2200 1500 800 100	21:00 1:00 7:00 0		Odd ye of Centur		O. Style.	700 1400 2100	100 800 1360 2200	200 900 1600 2300	300 1000 1700 2400	400 1100 1800 2500	500 1200 1000 2600	500 1300 2000 2700
Fr.	Th.	W.	Tu.	M.	Su.	Sa.	0	28.	56.	84.	Fr.	Th.	W.	Tu.	М.	Su.	Sa
Th.	W,	Tu.	M.	Sa .	Sa.	Fr.	.1	.29	.57	.86	Sa.	Fr.	Th.	W.	Tu.	M.	Su
Tu.	M.	Su.	Sa.	Fr.	Th.	W.	2	30	58	86	Su.	Su.	Fr.	Th.	W.	Tu.	M
M.	Su.	Sa.	Fr.	Th.	W.	Tu.	3	31	-59	87	M.	Su.	Sa.	Fr.	Th.	W.	Tu
Su.	Sa.	Fr.	Th.	W.	Tu.	M.	4.	32.	60.	88.	W.	Tu.	M.	Su.	Su.	Fr.	Th
Su.	Fr.	Th.	W.	Tu.	M.	Su.	.5	.33	.61	.89	Th.	W,	Tu.	M.	Su.	Sa.	Fr
Th.	W.	Tu.	M.	Su,	Sa.	Fr.	6	34	62	90	Fr.	Th.	W.	Tu.	M.	Su.	Sa
W.	Tu.	M.	Str.	Sa.	Fr.	Th.	7	35	63	91	Sa.	Fr.	Th.	W.	Tu.	M.	Su
Tu.	M.	Su	Sa.	Fr.	Th.	W.	8.	36.	64.	92.	M.	Su	Sa.	Fr.	Th.	W.	Tu
M.	Su.	Sa.	Fr.	Th.	W.	Tu.	.,9	.37	.65	98	Tu.	M,	Su.	Sa.	Fr.	Th.	W
Sa.	Fr.	Th.	W.	Tu.	M.	Su.	10	38	66	94	W.	Tu.	М.	Su.	Sa.	Fr.	Th
Fr.	Th.	W	Tu.	M.	Su.	Sa.	11	39	67	95	Th.	W.	Tu.	M.	Su.	Sa.	Fr
Th.	W.	Tu.	М.	Su.	Sa_	Fr.	12,	40.	68.	96.	Sa.	Fr.	Th.	W.	Tu.	M.	Su
W.	Tu,	M.	Su.	Sa.	Fr.	Th.	.13	.41	.69	.97	Su.	Sa.	Fr.	Th.	W.	Tu.	M
М.,	Su.	Sa.	Fr.	Th.	W.	Tu,	14	42	70	98	M.	Su.	Sa.	Fr.	Th.	W.	Tu
SIL	Sa.	Fr.	Th.	W.	Tu.	M.	1á	437	7.h	99	Tu.	M.	Su.	Sa.	Fr.	Th.	W
Sa.	Fr.	Th.	W.	Tu_	M.	Suc	169	344.	72.	20)	Th.	W.	Tu.	M.	Su.	Sa,	F
Fr.	Th.	W.	Tu.	M.	Su.	(8%)	.17	.45	.73		By,	Th.	W.	Tu.	M.	Su	Sa
W,	Tu.	М.	Su.	Sa.	Fr.	Th.	18	46	7.4 75	78	Su	Fr.	Th.	W.	Tu.	M.	Su
Γu.	M.	Su.	Sa.	Fr.	Th.	W.	19	17		100	Su.	Sa.	Fr.	Th.	W.	Tu.	M
М.	Su.	Sa.	Fr.	Th.	W.	Tu,	20	48.	76.		Tu.	M.	Su	Sa.	Fr.	Th.	W
Su.	Sa.	Fr.	Th.	W.	Tu.	M.	.21	.49	.77		W	Tu.	M.	Su.	Sa.	Fr.	T
Fr.	Th.	W.	Tu.	M.	Sit.	Sa,	22	.50	78		Th.	W,	Tu.	M.	Su.	Sa.,	Fr
Th.	W.	Tu.	M.	Su.	Sa.	Fr.	23	51	79		Fr.	Th.	W.	Tu.	M.	Su.	Sa
W.	Tu.	M.	Su.	Sa.	Fr.	Th.	24.	52	80.		Su.	Sa	Fr.	Th.	W.	Tu.	M
Γu.	M.	Su.	Sa.	Fr.	The Tu.	W.	25	-53	.81 82	أور	M. Tu.	Su. M.	Su.	Fr. Sa.	Th.	W.	Ti
Su. Sa.	Sa. Fr.	Fr. Th.	Th.	W, Tu.	M.	Tu.	27	64	83	الوق	W.	Tu.	M.	Su.	Fr.	Th.	W

## Second Part—for Months or Days.

Addiction	January, October,	February, Masch, Notember,	January, L. Y. April. July.	May.	June,	Peri., L. Y. August.	September, Becember,
24.0	6 13 20 27	6 1.5 20 27 7 14 21 28 1 9 15 22 29 2 9 16 23 30 3 10 17 24 11	3 10 17 24 81 4 11 18 25 5 12 19 26 6 13 20 27 7 14 21 28	1 8 L5 22 29 2 11 16 23 30 3 10 17 24 31 4 11 15 23 5 12 19 20	6 13 30 27 7 14 21 28 1 8 13 22 29 2 9 16 3 30	7 14 21 28 1 8 13 22 20 2 9 16 22 30 3 10 17 24 31 4 11 18 23	0 10 17 24 31 4 11 18 25 5 12 19 26 6 11 20 27 7 14 21 28 8 15 20 29 9 16 23 30

## EXPLANATION.

Any year being given, either before or after Christ, Old or New Style, find the century at the top of the Table and the old years in the middle column. The square of intersection shows the day on which the year commences. Then look for the day of the month in the lower part of the same table, and on a line with it, in the first column, is shown the number of days to be added to the initial day of the year first found: thus the 15th of April, 1833, will fall on Sunday + 6 — Saturday.

If the given year be'n lenp year, and the month January or February, it must be looked for under January, L. Y. or February, L. Y. A leap year after Christ is marked by a dot on the right hand; on Christ, by a dot on the left.

# XII.-CHRISTIAN ORDINARY SOLAR YEAR.

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## GENERAL TABLE OF THE HIJEA.

Note.—The Hijra Chronological Table has been collated with that published in Playfair's 'Chronology,' as several errors of the press were discovered in Warren's 'Kala Sankalita.' The dates are expressed in old or Julian style up to the year A D. 1750, after which they are continued in new or Gregorian style.

In the initial feriæ, 1 stands for Sunday, 2 for Monday, etc.

For an explanation of the Muhammadan era, see page 144, and for the application of the present table in conjunction with the calendric scale for the lunar year, see pages 175 and 185.

There are errors in many other published tales of the Hijra, and as those consulting them may thus be led to wrong results, it may be as well here to notice a few of the discrepancies which a cursory examination has discovered. Thus in 'Tables of the Christian and Muhammadan Eras,' published in Calcutta in the year 1790, by James White, the year 1800, A.D., is made a leap year, and all the Christian dates subsequent thereto are consequently in error one day, being in defect.

In the Sudur Dewanes tables the irregularities of the earlier Hijra dates cannot be reconciled on any principle of a single mistake pervading them; and as the false dates have been in a manner officially promulgated at the head of the Government Regulations, it becomes the more necessary to point them- out in a conspicuous manner. The Tables begin with the year 1765. The following are the corrections required for the first day of Muharram, up to the year 1197:—

```
1178 for 5th July, road 1st July, 1764.
                                                         1188 for 20th Mar., read 14th Mar. 1774.
1179 ,, 24th June, ,, 20th June.
                                                                                           4th Mar.
                                                         1189 ,, 9th Mar., ,,
1180 ,,
             2nd June, "
                                                         1190 ,, 28th Feb., ,, 21st Feb.
                                  9th June.
1180 " 2nd June, " 30th May.

1181 " 2nd June, " 30th May.

1182 " 22nd May, " 18th May.

1183 " 13th May, " 7th May.

1184 " 3rd May, " 27th April.

1185 " 24th April, " 16th April.
                                                                                           9th Feb.
                                                         1191 ,, 16th Feb., ,,
                                                                      4th Feb., ,,
                                                         1192 ", 4th Feb., ", 30th Jan.
1193 ", 22nd Jan., ", 19th Jan.
1194 ", 11th Jan., ", 1th Jan.
                                                                                          30th Jan.
                                                         1195 ,, 30th Dec., ,,
                                                                                          28th Dec.
             2nd April, "
                                 4th April.
                                                         1196 , 18th Dec., , 17th Dec.
                                                                                            7th Dec.
1187 ,, 30th Mar., ,, 25th Mar.
                                                         1197 .. 8th Dec., ..
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After this, the differences seldom exceed one day, and are caused by the wrong years being made bissextile. The jalús years of Sháh A'lam are all one year in advance.

Captain Jervis' Tables, printed at Bombay, are correct, differing only occasionally in the position of the intercalary years.

<sup>1</sup> The following, I am informed, is the mode in which the Sudur Dewanee Almanack is prepared. The Pandit of the Court, at the beginning of each English year, submits an almanack for the English and native Eras. One copy of this is kept in the office, and another forwarded to Government.

It may be noticed that the popular commencement of the Hijra year occurs on the first sight of the new moon; but this cannot affect its chronological deter-

mination.

Table XIII.—Of correspondence between the Hijra and the Julian and Gregorian Kalendars of Europe, showing the first day of each year of the Hijra Kalendar.

HEFBA	Cu	RISTLAN ERA	+	HURA	CH	RISTIAN BRA		Нтла	C	INISTIAN ER	٨.
YEAR.	Yenr.	Month.	Duy.	YEAH.	Year.	Month.	Day.	YEAR.	Year.	Month.	Dug
1	622	16 July	6	56 B.	675	25 Nov	1	111 B.	729	5 April.	3
2 B.	623	5 July		57	676	14 Nov		112	730	26 March	1
3	624	24 June	1	58	677	3 Nov		113	731	15 March	5
4	625	13 June			678					3 March	
5 B.	626			59 B.		23 Oct	7	114 B.	732		
		2 June		60	679	13 Oct	5	115	733	21 Feb	7
6	627	23 May		61	680	1 Oct	2	116 B.		10 Feb	
7 B.	628	11 May		62 B.	681	20 Sept		117	735	31 Jan	
8	629	1 May		63	682	10 Sept	4	118	736	20 Jan	
9	630	20 April	6	64	683	30 Aug	1	119 B.	737	8 Jan	1 3
10 B.	631	9 April.,	3	65 B.	684	18 Aug.	5	120	737	29 Dec	
11	632	29 March	1	66	685	8 Aug .	3	121	738	18 Dec	
12	633	18 March	5	67 B.	686	28 July		122 B.		7 Dec	1 9
13 B.	634	7 March	2	68	687	18 July	5	123	740	26 Nov	9 - 2
14	635	25 Feb.,		69	688	6 July	2	124	741	15 Nov	
15	636	14 Feb			689						
100 march 100	2027	14 Feb	1	70 B.		25 June.	6	125 B.	1000	4 Nov	
16 B.	637	2 Feb.,	1	71	690	lo June.	1 4	126	743	25 Oct	. 5
17	638	23 Jan		72	691	4 June.		127 B.		13 Oct	1
18 B.	639	12 Jan		73 B.	692	23 May		128	745	3 Oct	. 1
19	640	2 Jan	I	74	693	13 May	3	129	746	22 Sept	. 4
20	640	21 Dec	5	75	694	2 May	7	130 B.	747	11 Sept	
21 B.	641	10 Dec		76 B.	69.5	21 April.	4	131	748	31 Aug	
22	642	30 Nov	7	77	696	10 April		132	749	20 Aug	
23	643	19 Nov		78 B.	697	30 March		133 B	750	9 Aug	Ji
24 B.	644	7 Nov.		79	698	20 March		134	751		
25	645			and the second	1.00			1000.00		30 July	
	The second	28 Oct		80 D	699	9 March		135	752	18 July	
26 B.	646	17 Oct		81 B.	700	26 Feb		136 B		7 July	
27	647	7 Oct		82	701	15 Feb		137	754	27 June.	
28	648	25 Sept	. 0	83	702	4 Feb	. 7	138 B	755	16 June.	
29 B.	649	14 Sept	2	84 B.	703	24 Jan	. 4	139	756	5 June.	. 3
30	650	4 Sept		85	704	14 Jan	. 2	140	767	25 May	
31	651	24 Aug	4	86 B.	705	2 Jan,	6	141 B		14 May	
32 B.	652	12 Aug		87	705	23 Dec		142	759	4 May	В
33	653	2 Aug		88	706	12 Dec		143	760	22 April.	
34	654	22 July	3	89 B.		1 Dec	5	144 B	1		
35 B.	655	11 Tule	7	90		on West	1 0			11 April.	
36		11 July	7	11	708	20 Nov	. 3	145	762	1 April.	
	656	30 June.		91	709	9 Nov	. 7	146 B		21 March	
37 B.		19 June.		92 B.		29 Oct,	4	147	764	10 March	
38	658	9 June.		93	711	19 Oct	. 2	148	765	27 Feb	
39	659	29 May	. 4	94	712	7 Oct	. 6	149 B	. 766	16 Feb	
40 B.	660	17 May	. 1	95 B.	713	26 Sept	. 3	150	767	6 Feb	
41	661	7 May	. 6	96	714	16 Sept	. 1	151	768	26 Jan	
42	662	26 April.		97 B.	715	5 Sept		152 B		14 Jan	
43 B.		15 April.		98	716	25 Aug		153	770	4 Jan	
44	664	4 April.	. 5	99	717	14 Aug	7	154	770	24 Dec	
45	665	24 March		100 B.							
46 B.		13 March			719	3 Aug		155 B		13 Dec	
				101		24 July		156	772	2 Dec	-
47	667	3 March		102	720	12 July		157 B		21 Nov	
48 B.		20 Feb		103 B.		1 July		158	774	11 Nov	-
49	669	9 Feb		104	722	21 June.		159	775	31 Oct	
50	670	29 Jan	. 3	105	723	10 June.		160 B			
51 B.	671	18 Jan	. 7	106 B		29 May		161	777	9 Oct	
52	672	8 Jan		107	725		. 7	162	778	28 Sept	
53	672	27 Dec	. 2	108 B.	The second second	8 May	4	163 B		17 Sept	1
54 B.		16 Dec	. 6					Maria Company			- 1
55	674			109	727	28 April,		164	780		. !
90	1013	6 Dec	. 4	1110	728	16 April.	. 6	165	781	26 Aug	

HIJBA	Cn	RISTEN FRA		HIJBA	Си	RISTIAN ERS	+	HURA	CH	BISTIAN ER	
YBAR	Year.	Month.	Day.	YEAR.	Year.	Month.	Day.	TRAB.	Year.	Month.	Da
166 B.	782	15 Aug	5	226 B.	840	31 Oct	1	286 B.	899	17 Jan	4
167	783	5 Aug	3	227	841	21 Oct	6	287	900	7 Jan	2
168 B.	784	24 July	7	228 B.	0.000	10 Oct	3	288 B.	900	26 Dec	6
169	785	14 July		229	843	30 Sept	1	289	901	16 Dec	4
170	786	3 July		230	844	18 Sept		290	902	5 Dec	1
171 B.		22 June	6	231 B.		7 Sept	2	291 B.	903	24 Nov	10
172	788	11 June	4	232	846	28 Aug	7	292	904	13 Nov	3
173	789	31 May	1	233	847	17 Aug	4	293	905	2 Nov	7
174 B.		20 May	5	234 B.		5 Aug	1	294 B.	906	22 Oct	4
175	791	10 May	3	235	849	26 July	6	295	907	12 Oct	2
176 B.		28 April.	7	236 B.		15 July	3	296 B.	908	30 Sept	6
77	793	18 April	5	237	851	5 July	1	297	909	20 Sept	4
178	794	7 April	2	238	852	23 June		298	910	9 Sept	1
79 B.	795	27 March	6	239 B.	0.0001	12 June		299 B.	911	29 Aug	10
80	796	16 March	4	240	854	2 June	7	300	912	18 Aug	3
81	797	5 March	1	241	855	22 May	4	301	913	7 Aug	
82 B.	798	22 Feb		242 B.		10 May	1	302 B.	914	27 July	4
83	799	12 Feb	3	243	857	30 April.	6	303	915	17 July	2
84	800	1 Feb	7	244	858	19 April.	3	304	916	5 July	1 6
85 B.		20 Jan	4	245 B.	55.0	8 April.	7	305 B.	917	24 June	1 3
86	802	10 Jan		246	860	28 March	5	306	918	14 June	
87 B	802	30 Dec		247 B.	861	17 March	2	307 B.	919	3 June	
88	803	20 Dec	4	248	862	7 March	7	308	920	23 May	1 8
89	804	8 Dec		249	863	24 Feb	4	309	921	12 May	1
90 B.	805	27 Nov	5	250 B.	100	13 Feb	i	310 B.	922	1 May	
91	806	17 Nov		251	866	2 Feb	6	311	923	21 April	
	807	6 Nov		252	866	22 Jan	3	312	924	9 April	1
92 02 D	40.00	25 Oct		253 B.		11 Jan	7	313 B.		29 March	3
93 B.	808	15 Oct	2	254	868	1 Jan		314	926	19 March	i
94	809	15 Oct	6	255	868	20 Dec		315	927	8 March	6
95 oe P	810	4 Oct	3	256 B.	1202200	10 Dec	7	316 B.	928	O. S. 32.3.	2
96 B.	811	23 Sept		Marian Control	122354	29 Nov		2000	929	14 Feb	
97	812	12 Sept		257	870	18 Nov	4	317	930		
98 B.	813	1 Sept	5	258 B.		7 Nov	1	318 B.	931	3 Feb 24 Jan	9
99	814	22 Aug	3	259	872	97 (Pet	6	319	932		
00	815	11 Aug	7	260	873	27 Oct		320 201 P	100 100 100 100 100 100 100 100 100 100	13 Jan 1 Jan	
01 B.	816	30 July		261 B.		16 Oct	7	321 B.			
902	817	20 July		262	875	6 Oct		322	933		
03	818	9 July	6	263	876	24 Sept	2	323	934	30 Nov	9
04 B.	819	28 June		264 B.		13 Sept		324 B.		10 Nov	1 3
05	820	17 June		265	878	3 Sept	4	325	936	19 Nov	1
06 B.	821	6 June		266 B.		23 Aug	1	326 B.	938	8 Nov	13
07	822	27 May	3	267	880	12 Aug	6	327	200	29 Oct	H
08	823	16 May	7	268	881	I Aug	3	328	939	18 Oct	Ľ
09 B.	824	4 May		269 B.		21 July		329 B.	940	6 Oct	13
10	825	24 April		270	883	11 July	5	330	941	26 Sept	Н
11	826	13 April		271	884	29 June		331	942	15 Sept	13
12 B.	827	2 April.		272 B.		18 June		332 B.		4 Sept	
13	828	22 March		273	886	8 June		333	944	24 Aug	
14	829	11 March		274	887	28 May	1	334	945	13 Aug	1
15 B.	830	28 Feb	2	275 B.		16 May	5	335 B.	946	2 Aug	
16	831	18 Feb		276	889	6 May		336	947	23 July	1
17 B.	832	7 Feb		277 B.		25 April.,	7	337 B.	948	14 July	1
18	833	27 Jan		278	891	15 April.		338	949	1 July	
19	834	16 Jan		279	892	3 April.	2	339	950	20 June	
20 B.	835	5 Jan		280 B.		23 March	6	340 B.		9 June	
21	835	26 Dec		281	894	13 March	4	341	952	29 May	
22	836	14 Dec		282	895	2 March	1	342	953	18 May	
23 B.	837	3 Dec	2	283 B.		19 Feb		343 B.		7 May	
24	888	23 Nov		284	897	8 Feb		344	955	27 April.	
25	889	12 Nov	4	285	898	28 Jan	7	345	956	15 April.	13

HIJBA	Ca	RESTRAN MEA		HIJBA	Ca	BENTIAN BRA		HIJRA	C	ERISTIAN RR	A.
TRAR.	Year.	Month.	Day	YEAR.	Year.	Month.	Day.	YRAK	Yese.	Month.	Day
346 B.	957	4 April .	7	406 B.	1015	21 June.	3	466 B.	1073	6 Sept	6
347	958	25 March	5	407	1016	10 June		467	1074	27 Aug	
348 B.	959	14 March	2	408 B.	1017	30 May		468 B.	1075	16 Aug	
349	960	3 March	7	409	1018	20 May	3	469	1076	5 Aug	
350	961	20 Feb	4	410	1019	9 May		470	1077	25 July	3
351 B.	962	9 Feb	1	411 B.	1020	27 April.,	4	471 B		14 July	7
352	963	30 Jan	6	412	1021	17 April.		472	1079	4 July	
353	964	19 Jan	3	413	1022	6 April.		473	1090		
354 B.	965	7 Jan	7	414 B.		26 March	3	474 B.		11 June	
355 D	965	28 Dec	2	410 P	1024	15 March 4 March	1	475	1082	1 June	1
356 B. 357	967	17 Dec		416 B. 417	1025 1026	22 Feb	3	476 B.	1083	21 May 10 May	
358	968	7 Dec 25 Nov		418	1027	11 Feb		478	1085	29 April.	
359 B.	969	14 Nov	1	419 B.	200	31 Jan		479 B.		18 April.	1 20
360	970	4 Nov	6	420	1029	20 Jan		480	1087	8 April	
361	971	24 Oct	3	421	1030	9 Jan		481	1088	27 March	2
362 B.	972	12 Oct		422 B.	2222	29 Dec		482 B.		16 March	6
363	973	2 Oct		423	1031	19 Dec	1	483	1090	6 March	4
364	974	21 Sept	2	424	1032	7 Dec	5	484	1091	23 Feb	1
365 B.	975	10 Sept	6	425 B.	1033	26 Nov	2	486 B.	1092	12 Feb	5
366	976	30 Aug		426	1034	16 Nov	7	486	1093	1 Feb	3
367 B.		19 Aug		427 B.	120 Car. 4-1	6 Nov	4	487 B.		21 Jan	
368	978	9 Aug		428	1036	25 Oct		488	1095	11 Jan	
369	979	29 July	3	429	1037	14 Oct		489	1095	31 Dec	2
370 B.	980	17 July	7	430 B.	1039	3 Oct	8	490 B.		19 Dec	6
371	981	7 July		431	1040	23 Sept		491	1097	9 Dec 28 Nov	1
372 373 B.	982 983	15 June	6	432 433 B.	1041	11 Sept 31 Aug		492 493 B.	1098	17 Nov	
374	984	4 June	14450	434	1042	21 Aug	10000	494	1100	6 Nov	3
375	985	24 May	î	435	1043	10 Aug	44	495	1101	26 Oct	7
376 B.	986	13 May		486 B.	2.727	CONT	201	496 B.		15 Oct	4
377	987	3 May		437	1045			497	1103	5 Oct	2
378 B.	988	21 April .		438 B.	1046	8 July		498 B.	1104	23 Sept	
379	989	11 April .	5	439	1047	28 June	1	499	1105	13 Sept.,	4
380	990	31 March		440	1048	16 June	5	500	1106	2 Sept	1
381 B.		20 March	6	441 B.		5 June		501 B.		22 Aug	5
382	992	9 March		442	1050	26 May	7	502	1108	11 Aug	
383	993	26 Feb	1 6	443	1051	15 May	4	503	1109	31 July	7
384 B.	994	15 Feb		444 B.		3 May	1	504 B.	2000	20 July	4
385 200 B	995 996	5 Feb 25 Jan		446 D	1053	23 April	6	506 B	1111	10 July	6
386 B. 387	997	14 Jan,		446 B. 447	1054	12 April 2 April	1	506 B. 507	1113	28 June 18 June	4
388	998	3 Jan		448	1056	21 March	5	508	1114	7 June.	i
389 B.	998	23 Dec	6	449 B.	the second of	10 March	2	509 B.	1115	27 May	5
390	999	13 Dec	4	450	1058	28 Feb	7	510	1116	16 May	3
391	1000	1 Dec		451	1059	17 Feb	4	511	1117	5 May	7
392 B.	0.2.2.2.1	20 Nov	5	Charleston and All	1060	6 Feb	1	512 B.	1118	24 April.	4
393	1002	10 Nov 30 Oct	3		1061	26 Jan	6	513	1119	14 April	2
394	1003	30 Oct	7		1062	15 Jan		514	1120	2 April	6
395 B.	1004	18 Oct		455 B.	1063	4 Jan	7	515 B.		22 March	3
396	1005	8 Oct	2	456	1063	25 Dec	5	516	1122	12 March	1
397 B.		27 Sept	6	457 B.		13 Dec		517 B.		1 March	5
398	1007	17 Sept		458	1065	3 Dec	7	518	1124	19 Feb	3
399	1008	5 Sept		469	1066	22 Nov	4	519 500 P	1125	7 Feb	7
400 B.		25 Aug 15 Aug		460 B.		11 Nov	1	520 B.		27 Jan	
401	1010	4 Aug	7	461	1068	31 Oct,	6	521	1127	17 Jan 6 Jan	
402 403 B.	1011	23 July	4	462 463 B.	1069	20 Oct 9 Oct	3 7	522 523 B.	1128	25 Dec	6
404	1013	13 July	2	464	1070			524	1129	15 Dec	
105	1014	2 July		465	1072	17 Sept		525	1130	4 Dec	
			-		-01-	- cope -	- 1	-			

HIJHA	Cas	ISTIAN BRA		HIJBA	Cur	RISTIAN ERA		HIPPA	Cn	RISTLAN ERA	0
YRAR.	Year.	Month.	Day.	YEAR.	Year.	Month.	Day.	YEAR,	Year.	Month.	Dec
526 B.	1131	23 Nov	2	586 II.	1190	8 Feb	5	646 B.	1248	26 April.	1
527	1132	12 Nov		587	1191	29 Jan		647	1249	16 April.	6
528 B.	1133	1 Nov		588 B.	1192	18 Jan,	7	648 B.	1250	5 April	3
529	1134	22 Oct		589	1193	7 Jan		649	1251	26 March	li
530	1135	11 Oct	6	590	1193	27 Dec		650	1252	14 March	5
31 B.	1136	29 Sept	3	591 B.	1194	16 Dec		651 B.	1253	3 March	
532	1137	19 Sept		592	1195	6 Dec	4	652	1254	21 Feb	
33	1138	8 Sept		593	1196	24 Nov	1	653	1255	10 Feb	
34 B.		28 Aug		594 B.		13 Nov		654 B.	1256	30 Jan	
35	1140	17 Aug		595	1198	3 Nov		655	1257	19 Jan	6
36 B.	1141	6 Aug	4	596 B.	1000000	23 Oct	7	656 B.	1258	8 Jan	
537	1142	27 July	2	597	1200	12 Oct		657	1258	29 Dec	
538	1143	16 July	6	598	1201	1 Oct		658	1259	18 Dec	
539 B.		4 July		599 B.	1202	20 Sept.,	6	659 B.	1260	6 Dec	
540	1145	24 June		600	1203	10 Sept	4	660	1261	26 Nov	
541	1146	13 June		601	1204	29 Aug.,	î	661	1262	15 Nov	
542 B.		2 June		602 B.		18 Aug	5	662 B.	1263	4 Nov	1
543	1148	22 May		603	1206	8 Aug	3	663	1264	24 Oct	
544	1149	11 May		604	1207	28 July	44	664	1265	13 Oct	
545 B.	100 1000	30 April.		605 B.		16 July		665 B.	1266	2 Oct	17
546	1151	20 April.		606	1209	6 July		666	1267	22 Sept	1
547 B.		8 April.		607 B.		25 June,		667 B.		10 Sept	1 5
548	1153	29 March		608	1211	15 June.		668	1269	31 Aug	
549	1154	18 March		609	1212	3 June.		669	1270	20 Aug	
550 B.	170.00	7 March		610 B		23 May		670 B.		9 Aug.	
551	1156	25 Feb		611	1214	13 May.	C 1 1 1 1 1 1 1 1	671	1272	29 July	1
552	1157	13 Feb	4	612	1215	2 Mny.	7	672	1273	18 July.,	
553 B.		2 Feb			1216	20 April	200	673 B		7 July	13
554	1159	23 Jan		614	1217	10 April	100	674	1275	27 June	1
555	1160	12 Jan		615	1218	30 Marel	10000	675	1276		
556 B.		31 Dec.,,		616 B		19 Marel	5.00	676 B		4 June.	
657	1161	21 Dec		617	1220	8 Marel		677	1278	25 May	
558 B.		10 Dec		618 B	1 7 2 5 5	25 Feb		678 B		14 May	
559	1163	30 Nov		619	1222	15 Feb		679	1280		
560	1164	18 Nov		620	1223	4 Feb.	7	680	1281	22 April	
561 B		7 Nov		621 B		24 Jan		681 B			_
562	1166	28 Oct		622	1225	13 Jan		682	1283		
563	1167	17 Oct	3	623	1226	2 Jan.,		683	1284	20 March	
564 B		5 Oct		624 B		22 Dec	3	684 B	E in column at		
565	1169	25 Sept.		625	1227	12 Dec.,		685	1286		
566 B				626 B		30 Nov.	1 5	686 B	The second second	16 Feb	
567	1171			627	1229	20 Nov		687	1288		
568	1172			628	1230			688	1289		
569 B			. 1	629 B		29 Oct.,		689 B			
570	1174	2 Aug		630	1232	18 Oct	2	690	1291	4 Jan	
571	1175			631	1233		6	691	1291	24 Dec	
572 B				632 B			3	692 B			
573	1177			633	1235	16 Sept.	1	693	1293		
574	1178	m		634	1236			694	1294	21 Nov.	
575 B			1 6	635 B		24 Aug.	2	695 B			
576	1180			636	1238		7	696	1296		
	1181		1	637 B		3 Aug.	4	697 B			
578	1182			638	1240		2	698	1298		
579	1183	All the same of the same		639	1241		. 6	699	1299		
580 B										16 Sept.	
581	1185			640 B				700 B			"
582				641	1243			701	1301		
583 E	1186			642 642 T	1244			702	1302	26 Aug.	
584				643 B			. 2	703 B			
585	1188	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		644	1246		-17	704	1304		
acres	47.05	19 Feb.		645	1247	8 May.	4	705	1300	24 July	

HERRA	C	SBISTIAN RR	٨,	Піль	Cu	BUSTIAN REA-	0	HIJBA	Ci	intercen mea	
YEAR.	Year,	Month,	Day.	YBAR.	Year.	Month.	Day.	YHAH.	Year.	Month.	Dwy
706 B	1306	13 July	4	766 B.	1364	28 Sept	7	826 B.	1422	15 Dec	3
707	1307	3 July	2	767	1365	18 Sept	5	827	1423	5 Dec	i
708 B		21 June.	6	768 B.		7 Sept	2	828 B.	1424	23 Nov	5
709	1309	11 June.	4	769	1367	28 Aug	7	829	1425	13 Nov	3
710	1310	31 May.,		770	1368	16 Aug	4	830	1426	2 Nov	7
	1311	20 May	5	771 B.		5 Aug	i	831 B.	1427	22 Oct	4
712	1312	9 May.		772	1370	26 July	6		1428	11 Oct	2
713	1313	28 April.		773	1371	15 July	3	832 833	1429	30 Sept	6
714 B		17 April.		774 B.		3 July		The second secon	1430	19 Sept	9
715	1315	7 April.		775	1373	3 July 23 June		834 B.	1431	9 Sont	3
716 B.		26 March		776 B.		12 June	2	835 996 P	1432	9 Sept 28 Aug	5
717	1317	16 March	4	777	1375	2 June	7	836 B.	1433	18 Ann	3
718	1318	5 March	li	778	1376	21 May	4	837	1434	18 Aug	1 2
719 B.		22 Feb	5	779 B.	1377	10 May	i	838 een P	1435	7 Aug 27 July	7
720	1320	12 Feb	3	780	1378	20 April		889 B.	1436	16 July	4
721	1321	31 Jan	7	781	1379	30 April	3	840	1437	5 July	2
722 B.		20 Jan	4	782 B.	1380	19 April		841 840 P	1438	94 Terns	6
723	1323	10 Jan	2	783	1381	7 April	7	842 B.	1439	24 June 14 June	3
724	1323	30 Dec	6	784	1382	28 March	5	843	1440		
725 B.	1324	18 Dec	3	785 B.	1383	17 March	2	844 845 D	1441	2 June	6
726	1325	8 Dec	1	786		6 March	6	845 B.		22 May	2
727 B.	1326	27 Nov	5	787 B.	1384	24 Feb	4	846	1442	12 May.,.	7
728	1327	17 Nov	3	The Control of the Co	- 95.000	12 Feb	25	847 B.	1443	1 May	4
729	1328	5 Nov	7	788 789	1386	2 Feb	5	848	1444	20 April,	2
730 B.	1329	25 Oct.	4	The second second	1387	22 Jan	3	849	1445	9 April	
731		15 Oct.	2	790 B.	1388	11 Jan	7	850 B.	1446	29 March	3
732	1330	15 Oct		791	1388	31 Dec	5	851	1447	19 March	1
733 B.		4 Oct 22 Sept	3	792	1389	20 Dec	2	852	1448	7 March	5
734		12 September		793 H.	1390	9 Dec.,	6	853 B.	1449	24 Feb.,	2
735	1333	12 Sept	1	794	1391	29 Nov	3.1	854	1450	14 Feb	7
736 B.	1334	1 Sept		795	1392	17 Nov	1	855	1451	3 Feb,	4
737		21 Aug		796 B.	1393	6 Nov	5	856 B.	1452	23 Jan	1
738 B.	1336	10 Aug		797	1394	27 Oct		857	1453	12 Jan	6
739		30 July	4	798 B.	1395	16 Oct	7	858 B.	1454	1 Jan	3
740	1338 1339	20 July		799	1396	5 Oct	5	859	1454	22 Dec	1
741 B.		9 July	6	800	1397	24 Sept	2	860	1465	11 Dec	5
742	1341	27 June 17 June	3	801 B.	1398	13 Sept	6	861 B.	1456	29 Nov	
743				802	1899	3 Sept		862	1457	19 Nov	7
744 B.	1342	6 June	5	803 804 D	1400	22 Aug	1	863	1458	8 Nov	4
		24 May	2	804 B.		11 Aug	5	864 B.	1459	28 Oct	1
145 146 D	1344	15 May	7	805 806 D	1402	1 Aug	3	865	1460	17 Oct	6
746 B. 747	1346	4 May		806 B.	1403	21 July	7	866 B.	1461	6 Oct	3
748	1346	24 April.		807	1404	10 July	5	867	1462	26 Sept	1
749 B.	1347 1348	13 April		808	1405	29 June	2	868	1463	15 Sept	5
	0.00	1 April		809 B.	1406	18 June	6	869 B.	1464	3 Sept	2
750	1349	22 March	1 1	810	1407	8 June	4	870	1465	24 Aug	7
751 750 D	1350	11 March	5	811	1408	27 May	1	871	1466	13 Aug	4
752 B.		28 Feb	2	812 B.	1409	16 May	6	872 B.	1467	2 Aug	1
753	1352	18 Feb	7	813	1410	6 May	3	873	1468	22 July	
754 755 D	1353	6 Feb	4	814	1411	25 April		874	1469	11 July	
755 B.		26 Jan	1	815 B.	1412	13 April	4	875 B.	1470	30 June	7
756	1355	16 Jan	6	816	1413	3 April	2	876	1471	20 June	5
757 B.		5 Jan	3	817 B.	1414	23 March	6	877 B.	1472	S June	2
758	1356	25 Dec	1	818	1415	13 March	4	878	1473	29 May	7
759 Too D	1357	14 Dec	5	819	1416	1 March	1	879	1474	18 May	4
60 B,		3 Dec	2	820 B.	1417	18 Feb	5	880 B.	1475	7 May	1
61	1359	23 Nov	7	821	1418	8 Feb	3	881	1476	26 April	6
62	1360	11 Nov		822	1419	28 Jan	7	882	1477	15 April	3
63 B,		31 Oct.,	1	823 B.	1420	17 Jan	4	883 B.	1478	4 April	7
64	1362	21 Oct	6	824	1421	6 Jan	2	884	1479	25 March	5
65	1363	10 Oct	3	825	1421	26 Dec	6	885	1480	13 March	2

HIJERA	Cu	RESTRAN		HIJRA	C	ERIPTIAN RRA	40	HURA	Cr	ARE MARFORN	4
THAR.	Year.	Month.	Day.	YEAR.	Year.	Month.	Deg.	YEAR,	Year,	Month.	Day
886 B.	1481	· 2 March	6	946 B.	1539	19 May	2	1006 B.	1597	4 Aug	5
887	1482	20 Feb		947	1540	8 May		1007	1598	25 July	3
888 B.	1483	9 Feb		948 B.	1541	27 April		1008 B.	1599	14 July	
889	1484	30 Jan	6	949	1542	17 April	1 2 1	1009	1600	3 July	
890	1485	18 Jan	3	950	1543	6 April.	100	1010	1601	22 June	
891 B.	1486	7 Jan	7	951 B	1544	25 March	3	1011 B.	1602	11 June	
892	1486	28 Dec		952	1545	15 March	1	1012	1603	1 June	
893	1487	17 Dec	2	953	1546	4 March	5	1013	1604	20 May	
	1488	5 Dec	6	954 B.	1547	O+ 12-1	0.1	1014 B.	1605	9 May	
894 B.	1489	25 Nov		955	1648	11 Feb		1015	1606	29 April	
895 896 B.	1490	14 Nov	li	956 B.	1549	30 Jan		1016 B.	1607	18 April	
	1491	4 Nov		957	1550	20 Jan		1017	1608	7 April	
897	1492		1.00	958	1551	9 Jan		1018	1609	27 March	
898 800 P	100000	23 Oct		959 B.	1651	29 Dec		1019 B.	1610	16 March	
899 B.	1493	12 Oct		960	1552	18 Dec	i	1020	1611	6 March	
900	1494	2 Oct			1553	7 Dec	5	1021	1612	23 Feb	
901	1495	21 Sept	2	961 962 P		26 Nov	2		1613	11 Feb	5
902 B.	1496	9 Sept	6	962 B.	1554			1022 B.		1 Peb	0
903	1497	30 Aug		963	1555	16 Nov	7	1023	1614	1 Feb	3
904	1498	19 Aug		964	1556	4 Nov		1024	1615	21 Jan	17
905 B.	1499	8 Aug	5	965 B.	1657	24 Oct		1025 B.	1616	10 Jan	4
906	1500	28 July		966	1558	14 Oct		1026	1617	30 Dec	2
907 B.	1501	17 July		967 B.	1559	3 Oct	3	1027 B.	1617	19 Dec	6
908	1502	7 July		968	1560	22 Sept	1/2/	1028	1618	9 Dec	4
909	1503	26 June		969	1561	11 Sept		1029	1619	28 Nov	
910 B.	1504	14 June	6	970 B.	1562	31 Aug	2	1030 B.	1620	16 Nov	6
911	1505	4 June		971	1563	21 Aug		1031	1621	6 Nov	3
912	1506	24 May	11	972	1564	9 Ang		1032	1622	26 Oct	
913 B.	1507	13 May	0	973 B	1565	29 July		1033 B.	1623	15 Oct	
914	1508	2 May	3	974	1566	19 July		1034	1624	4 Oct	2
915	1509	21 April.	7	975	1567	8 July		1035	1625	23 Sept	6
916 B.	1510	10 April.	4 1	976 B.	1568	26 June	7	1036 B.	1626	12 Sept	3
917	1511	31 March	2	977	1569	16 June		1037	1627	2 Sept	1
918 B.	1512	19 March	6	978 B.	1570	5 June		1038 B.	1628	21 Aug	5
919	1513	9 March	4	979	1571	26 May	7	1039	1629	11 Aug	3
920	1514	26 Feb		980	1572	14 May	4	1040	1630	31 July	7
921 B.	1515	15 Feb	5	981 B.	1573	3 May	1	1041 B.	1631	20 July	4
922	1516	5 Feb	. 3	982	1574	23 April.	6	1042	1632	9 July	2
923	1517	24 Jan		983	1575	12 April		1043	1633	28 June	6
924 B.	1518	13 Jan		984 B.	1576	31 March	7	1044 B.	1634	17 June	3
925	1519	3 Jan		985	1577	21 March	5	1045	1635	7 June	
926 B.	1519	23 Dec	6	986 B.	1578	10 March	2	1046 B.	1636	26 May	5
927	1520	12 Dec		987	1579	28 Feb	7	1047	1637	16 May	3
928	1521	1 Dec		988	1580	17 Feb	4	1048	1638	5 May	7
929 B.	1522	20 Nov		989 B.	1581	5 Feb	1	1049 B.	1639	24 April	
930	1523	10 Nov		990	1582	26 Jan		1050	1640	13 April	
931	1524	29 Oct		991	1683	15 Jan		1051	1641	2 April	
932 B.	1525	18 Oct		992 B.	1584	4 Jan		1052 B.	1642	22 March	3
933	1526	8 Oct	2	993	1684	24 Dec		1053	1643	12 March	ĭ
				994	1585	13 Dec.,,	2	1054	1644	29 Feb	
934	1527	27 Sept		995 B.	1686	2 Dec	6	1055 B.		17 Feb	2
935 B.		15 Sept	1:1			22 Nov	4			7 Feb	1 5
936	1529	5 Sept		996 997 B	1587	10 Nov		1056 1057 B	1646	7 Feb	
937 B.		25 Aug		997 B.	1588			1057 B.		27 Jan	
938	1531	15 Aug		998	1589	31 Oct	6	1058	1648	17 Jan	2
939	1532	3 Aug		999	1590	20 Oct	3	1059	1649	5 Jan	6
940 B.	1533	23 July		1000 B.		9 Oct		1060 B.		25 Dec	
941	1534	13 July	2	1001	1592	28 Sept		1061	1650	15 Dec	
942	1535	2 July	6	1002	1593	17 Sept	2	1062	1651	4 Dec	
943 B.	1536	20 June		1003 B.	1594	6 Sept	6	1063 B.	1652	22 Nov	2
944	1537	10 June	1	1004	1595	27 Aug	4	1064	1653	12 Nov	7
	1538	30 May		1005	1596	15 Aug		1065	1654	1 Nov	4

HIJBA	CHE	INTIAN ERA	. 1	HEIRA	Cur	RESTELN BUG.	8	Ilizza	CH	BISTIAN ERA	+
YEAR.	Year.	Month.	Day.	YEAR.	Year.	Month.	Day.	VELE.	Year.	Month.	Da
1066 B.	1655	21 Oct	. 1	1126 B.	1714	6 Jan	4	1186 B.	1772	4 April.	7
1067	1656	10 Oct		1127	1715	27 Dec		1187	1773	25 March	
068 B.	1657	29 Sept		1128 B.	formal at the later	16 Dec		1188 B.	1774	14 March	
1069	1658	19 Sept.	. 1	1129	1716	5 Dec	4	1189	1775	4 March	
070	1659			1130	1717	24 Nov	i	1190	1776	21 Feb	
	12 2 2 2 2 1	8 Sept	. 2	1131 B.		13 Nov	5	A 4 4 4 4 4 1	A 100 MILES	9 Feb	
1071 B.		27 Aug.,			1719	2 Nov	3	1191 B.		30 Jan	
1072	1661	17 Aug		1132		3 Nov	0	1192	1778		
1073	1662	6 Aug.,		1133	1720	22 Oct		1193	1779	19 Jan	
1074 B.	W 100 00 00	26 July		1134 B.		11 Oct		1194 B.	1780	8 Jan	
1075	1664	15 July.		1135	1722	1 Oct	2	1195	1780	28 Dec	
1076 B.	100000	4 July	. 3	1136 B.		20 Sept	6	1196 B.		17 Dec	
1077	1666	24 June.		1137	1724	9 Sept		1197	1782	7 Dec	
1078	1667	13 June.		1138	1725	29 Aug	1	1198	1783	26 Nov	1 :
1079 B.		1 June.		1139 B.		18 Aug	5	1199 B.	1784	14 Nov	13
1080	1669	22 May	. 7	1140	1727	8 Aug	3	1200	1785	4 Nov	1 5
1081	1670	11 May.		1141	1728	27 July		1201	1786	24 Oct	
1082 B.	1671	30 April.		1142 B.		16 July		1202 B.		13 Oct	13
1083	1672	19 April.	. 6	1143	1730	6 July		1203	1788	2 Oct	4 6
1084	1673	8 April		1144	1731	25 June	6	1204	1789	21 Sept	1 2
1085 B.	1674	28 March		1145 B.		13 June.	3	1205 B.	1790	10 Sept	. 6
1086	1675	18 March	1 5	1146	1733	3 June		1206	1791	31 Aug	43
1087 B.	1676	6 March	2	1147 B.		23 May		1207 B.	1792	19 Aug	4.3
1088	1677	24 Feb	12	1148	1735	13 Mny	3	1208	1793	9 Aug	. 6
1089	1678	13 Feb	. 4	1149	1736	1 May		1209	1794	29 July	1 2
1090 B.	1679	2 Feb		1150 B.	1737	20 April.	4	1210 B.	1795	18 July	. 17
1091	1680	23 Jan	. 6	1151	1738	10 April .	2	1211	1796	7 July	
1092	1681	11 Jan.,,	. 3	1152	1739	30 March	6	1212	1797	26 June	
1093 B.	1681	31 Dec	. 7	1153 B.	1740	18 Murch	3.	1213 B.		15 June	. 6
1094	1682	21 Dec		1154	1741	8 March	40	1214	1799	6 June .	
1095	1683	10 Dec.,.		1155	1742	25 Feb		1215	1800	25 May	. 1
1096 B.		28 Nov	. 6	1156 B.	1743	14 Feb		1216 B.	1801	14 May	1
1097	1685	18 Nov		1157	1744	4 Feb	7	1217	1802	4 May	1 8
1098 B.	100000000000000000000000000000000000000	7 Nov.		1158 B.	400000	23 Jan		1218 B.	1803	23 April.	1 3
1099	1687	28 Oct		1159	1746	13 Jan		1219	1804	12 April.	
1100	1688	16 Oct		1160	1747	2 Jan		1220	1805	1 April.	
1101 B.	1689	5 Oct		1161 B.	A 100 1 100 1	22 Dec.,		1221 B.		21 March	
1102	1690	25 Sept.		1162	1748	11 Dec	ĩ	1222	1807	11 March	
1103	1691	14 Sept.		1163	1749	30 Nov	5	1223	1808	28 Feb	li
1104 B.	1692	2 Sept.	. 6	1164 B.		19 Nov	2	1224 B.		16 Feb	12
1105	1693	23 Aug		1165	1751	9 Nov.	7	1225	1810	6 Feb	13
1106 B.	1694			1166 B.		8 Nov.n.s		1226 B.		26 Jan	13
		12 Aug.		1167	1753					16 Jan.	13
1107	1695 1696	2 Aug.		1168	1754			1227	1812	16 Jan	1 5
		21 July.		1169 B.		18 Oct		1228	1813	4 Jan	13
1109 B.		10 July				7 Oct	3	1229 B.	1813	24 Dec	15
1110	1698	30 June		1170	1756	26 Sept		1230	1814	14 Dec	13
	1699	19 June		1171	1757	15 Sept,	0	1231	1815	3 Dec	13
1112 B.		7 June	- 6	1172 B.		4 Sept	2 7	1232 B.		21 Nov	1.5
1113	1701	28 May.	- 4	1173	1769		1 7	1233	1817	11 Nov	13
1114	1702	17 May.	. 1	1174	1760	13 Aug	4	1234	1818	31 Oct	17
1115 B.		6 May.		1175 B.		2 Aug	1	1235 B.		20 Oct	1 1
1116	1704	25 April		1176	1762	23 July		1236	1820	9 Oct	13
1117 B.		14 April		1177 B.		12 July		1237 B.		28 Sept	-
1118	1706	4 April	. 5	1178	1764	1 July		1238	1822	18 Sept	43
1119	1707	24 March		1179	1765	20 June.		1239	1823	7 Sept	- 1
1120 B.		12 Marc		1180 B		9 June	- 2	1240 B.		26 Aug	4
1121	1709	2 Marci		1181	1767	30 May	. 7	1241	1825	16 Aug	. 1
1122	1710	19 Feb .		1182	1768	18 May	. 4	1242	1826	5 Aug	13
1123 B.	1711	8 Feb .		1183 B	1769	7 May	. 1	1243 B.	1827	25 July	1 4
1124	1712	29 Jan.,		1184	1770	27 April.		1244	1828	14 July	.) 3
1125	1713	17 Jan	7	1185	1771	16 April.	. 3	1245	1829	3 July	. 6

HIJRA	CHI	RISTIAN BRA	-	HIJBA	Cn	BIRTLAN ERA		Негия	Cun	RETTAN ERA.	
YEAR,	Year.	Month.	Day.	YRAR.	Year.	Month,	Day.	YEAR.	Year.	Month.	Day
1246 B.	1830	22 June	3	1271	1854	24 Sept	1	1295 B.	1878	5 Jan	7
1247	1831	12 June	1	1272	1855	13 Sept	5	1296	1878	26 Dec	5
1248 B.		31 May		1278 B.	1856	1 Sept	2	1297 B.	1879	15 Dec	2
1249	1833	21 May	3	1274	1857	22 Aug	7	1298	1880	4 Dec	7
1250	1834	10 May	7	1275	1858	11 Aug	4	1299	1881	23 Nov	4
251 B.	1835	29 April.	4	1276 B.	1859	31 July	1	1300 B.	1882	12 Nov	1
252	1836	18 April.		1277	1860	20 July		1301	1883	2 Nov	6
253	1837	7 April.		1278 B.	1861	9 July		1302	1884	21 Oct	1 8
254 B.	1838	27 March		1279	1862	29 June		1303 B.	1885	10 Oct	1 7
255	1839	17 March		1280	1863	18 June	5	1304	1886	30 Sept	. 4
1256 B.	1840	5 March	5	1281 B.	1864	6 June	2	1305	1887	19 Sept	. 2
1257	1841	23 Feb	. 3	1282	1865	27 May	7	1306 B.	1888	7 Sept	. (
1258	1842	12 Feb		1283	1866	16 May	4	1307	1889	28 Aug	. 1
259 B.		1 Feb	4	1284 B.	1867	5 May	1	1308 B.	1890	17 Aug	. 1
1260	1844	22 Jan	2	1285	1868	24 April.	6	1309	1891	7 Aug	. 1
1261	1845	10 Jan		1286 B.	1869	13 April.	. 3	1310	1892	26 July	. 1
1262 B.		30 Dec	. 3	1287	1870	3 April.		1311 B.	1893	15 July	. 1
1263	1846	20 Dec	. 1	1288	1871	23 March	5	1312	1894	5 July	
1264	1847	9 Dec	. 5	1289 B.	1872	11 March	2	1313	1895	24 June	. 1
1265 B.	1848	27 Nov	. 2	1290	1873	1 March	7	1314 B.	1896	12 June.	
1266	1849	17 Nov	. 7	1291		18 Feb	4	1315	1897	2 June	
267 B.		6 Nov		1292 B.				1316 B.	1898	22 May	
1268	1851	27 Oct	. 2	1293	1876			1317	1899	12 May	11
1269	1852	15 Oct.	6	1294	1877	16 Jan		1318	1900	1 May	. :
1270 B.	1853	4 Oct	. 3	1			1 0	17Sta			

# NOTE REDARDING THE CHRONOLOGICAL TABLES OF THE HINDÉ ÆRAS.

In consequence of the want of width in an octavo page, it has been found necessary to break the following table into two parts, instead of exhibiting in one line and view, the whole series of the sidereal and luni-solar arms; which would have been more convenient for reference. In other respects the numbers of the several columns, etc. remain as stated in the text.

SOLAR Y	EAR.	-0000				DU SIDEREAL			100	-	
I.	11.	III	IV.	v.	VI.	VII.	VIII.		IX.	X.	XI
		Year	s beginni	ng on a	ntrance of c Sidereal	near. Castte. milsute r⊙ea- on ¬.		_	CLES.		_
CHRISTIAN YEAR,		Zodiac.	1 Into At	11.50 CO CO	ic bidereni	the year.  Iny of ditt  and miss  other or O	Bá.	Brp.	\$	wi -i	귤
2	6				155	Character of the year First weekly day of di Indian bour and mi of Sankrunn or G ters constellation	yele of 1000 years of Parasaráma, begin- ning in September.	1,01	Grahapari-	Velbsparf, account).	Do. (Tamul account.
3	ditto,			•	Marrh Marrh	the state of the s	0.45	E	12	48	8
5	8	177		Bengili San.		of hound mkry	288	date Tr.	yele of 6	P 8	3
1	day of	台		22	\$5	Tage as a	音音音	- 2	P.F	of Head	급
0	-60	7	- 1	4	thirth of the o	Character First week Indian b of San	Paragon Paragon ring in	Initial d	Cycle	Cycle of (Bengal	12
A. D.	Pirst	Kall-yug	Saka	M.	Initial O.S.	49 E	Set H	14	5	6	Ä
	_	1				D. G. P.	776	10	5	43	34
B.1600	Tu.	4701	1522	1007	Th. 27 Sa. 28	B. (4) 54 35 (6) 10 6	777	11	6	44	35
1601	Th.	4702	1523	1008	Sa. 28 Su. 28	(0) 25 37	778	11	7	46	36
1602	Fr.	4703	1524 1525	1010	Mo. 28	(1) 41 8	779	11	8	46	37
1603	Sa. Su.	4704 4705	1526	1011	Tu. 27	B. (2) 56 40	780	10	9	47	38
B.1604	Tu.	4706	1527	1012	Th. 28	(4) 12 11	781	10	10	48	39
1605 1606	We.	a deal on the	1528	1013	Fr. 28	(5) 27 42	783	11	11	49	40
1607	Th.	4708	1529	1014	Sa. 28	(6) 43 13	783	11	12	50	41
B.1608	Fr.	4709	1530	1015	Su. 27	B. (0) 58 45	784	10	13	51	42
1609	Su.	4710	1531	1016	Tu. 28	(2) 14 16	785	10	14	52	43
1610	Mo.	4711	1532	1017	We. 28	(3) 29 47	786	11	15	53	44
1611	Tu.	4712	1533	1018	Th. 28	B. (4) 45 18	787	11	16	54	45
B.1612	We.		1534	1019	Sa. 28	(6) 0 50	7.68	10	17	55	46
1613	Fr.	4714	1535	1020	Su. 28	(0) 16 21	789	11	18	56	47
1614	Sa.	4715	1536	1021	Mo 28	(1) 31 52	790	11	19	57 58	48
1615	Su.	4716	1537	1022	Tu. 28	B. (2) 47 28	791	11	20	59	50
B.1616	Mo,	4717	1538	1023	Th. 28	(4) 2 55	792	10	22	60	51
1617	We,		1539	1024	Pr. 28	(5) 18 26	793 794	ii	23	1	52
1618	Th.	4719	1540	1025	Sa. 28	B. (6) 33 57 B. (0) 49 28	795	ii	24	2	53
1619	Fr.	4720	1541	1025	Su. 28	B. (0) 49 28 (2) 5 0	796	ii	25	3	54
B.1620	Sa.	4721	1542	1027	Tu. 28 We. 28	3 20 31	797	ii	26	4	55
1621	Mo.	4722	1543	1028	Th. 28	4) 36 2	798	11	27	5	56
1622	Tu. We.	4723	1544	1030	Fr. 28	B. (5) 51 33	799	11	28	6	57
1623 P 1624	Th.	4725	1546	1031	Su. 28	0 7 5	800	11	29	7	58
B.1624 1625	Sa.	4726	1547	1032	Mo. 28	(1) 22 36	801	11	30	8	59
1626	Su.	4727	1548	1033	Tu. 28	(2) 38 7	802	11	31	9	60
1627	Mo.	4728	1549	1034	We. 28	B. (3) 53 38	803	11	32	10	1
B.1628	Tu.	4729	1550	1035	Fr. 28	(5) 9 10	804	11	33	11	2
1629	Th.	4730	1551	1036	Sa. 28	(6) 24 41	805	11	34	12	3
1630	Fr.	4731	1552	1037	Su. 28	(0) 40 12	806	11	35	13	4
1631	Sa.	4732	1553	1038	Mo. 28	B. (1) 55 43	807	11	36	14	-5
B.1632	Su.	4733	1554	1039	We. 28	(3) 11 10	808	11	37	15	6
1633	Tu.	4734	1555	1040	Th. 28	(4) 26 46	809	11	38	16	8
1634	We.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1556	1041	Fr. 28	(5) 42 17	810 811	11	40	18	9
1635	Th.	4736	1557	1042	Sa. 28	B. (6) 57 48 (1) 13 20	812	111	41	19	10
B.1636	Fr.	4737	1558	1043	Mo. 28		813	lii	42	20	11
1637	Su.	4738	1569	1044	Tu. 28	(2) 28 51 (3) 44 22	814	ii	43	21	12
1638	Mo.		1560	1045	We, 28 Th. 28	B. (4) 59 53	815	ii	44	22	13
1639 P 1640	Tu.	4740 4741	1561 1562	1045	Sa. 28	(6) 15 25	816	îî	45	23	14
B.1640	We.	4742	1563	1048	Su. 28	(0) 30 56	817	11	46	24	15
1641	Sa.	4743	1564	1049	Mo. 28	B. (1) 46 27	818	11	47	25	16
1642	Su.	4744	1565	1050	We. 29	(3) 1 58	819	11	48	26	17
1643 B.1644	Mo.		1566	1051	Th. 28	(4) 17 30	820	11	49	27	18
1645	We.		1567	1052	Fr. 28	(5) 33 1	821	11	50	28	19
1646	Th.	4747	1568	1053	Sa. 28	B. (6) 48 32	822	11	51	29	20
1647	Fr.	4748	1569	1054	Mo. 29	(1) 4 3	823	12	52	30	21
B.1648	Sa.	4749	1570	1055	Tu. 28	(2) 19 35	824	11	53	31	22
1649	Mo.		1571	1056	We. 28	(3) 35 6	825	11	54	32	23

The Fasil year of Southern India is two years in advance of the Bengáli san; it begins on the 10-16
July, and is now fixed to the latter day. (The table shows the correspondence of Hindú cras with
European dates.)

SOLAR Y	EAR.					DU SIDEREAL			-		_
I,	11.	111.	IV.	V.	VI.	VII.	VIII.		IX.	X.	XI
ej	-3	Years the Sun Zoding.	beginnin into Arie	ig on en	trance of Sidercal	effte.	7.1 si	de	LES.	.r.\	7
CHRISTIAN VIAB.	First day of ditto.	Kall-yag.	Sdkn.	Bengalt San.	Initial date of all three in March O.S.	Character of the year.  First weekly day of diffeo.  Indian bour and minute of Sendralita, or $\bigcirc$ en- ters constellation $\cap$ .	Cycle of 1000 years of Parasurana, begin- ning in September.	Initial date in 8 tember,	Cycle of Grahapari vrithi.	Cycle of Vribepati, (Bengal account).	Do. (Tamul necount.
A. D.  1650 1651 B.1652 1653 B.1656 1657 1658 1660 1661 1662 1666 1666 1667 B.1666 1667 B.1668 1667 B.1670 1671 B.1672 1673 1674 1675 B.1678 1679 B.1680 1681	Tu. We. Th. Sa. Su. Tu. We. Th. Fr. Sa. Su. We. Th. Fr. Su. Mo. Tr. Sa. Su. We. Th. Fr. Sa. Mo. Tu. We. Th. Sa. Mo. Tu. Th. Sa. Su. Tu. Th. Th. Th. Th. Th. Th. Th. Th. Th. Th	4751 4752 4753 4754 4755 4756 4757 4758 4759 4760 4761 4762 4763 4764 4765 4768 4769 4770 4771 4772 4773 4774 4775 4776 4777 4778 4779 4781 4783 4784 4783 4784 4785	2 1572 1573 1574 1576 1577 1578 1579 1589 1584 1585 1586 1591 1592 1593 1594 1595 1596 1597 1598 1599 1600 1601 1602 1603 1604 1605 1606 1607 1608	1057 1058 1059 1060 1061 1062 1063 1064 1066 1067 1068 1069 1070 1071 1072 1073 1074 1076 1077 1078 1077 1078 1079 1080 1081 1082 1083 1084 1085 1089 1090 1091	Th. 28 Sa. 29 So. 28 Mo. 28 Tu. 28 Th. 29 Fr. 28 So. 28 So. 28 Tu. 29 Wo. 28 Tu. 29 Wo. 28 Th. 29 Wo. 28 Th. 29 Wo. 28 Th. 29 Wo. 28 Fr. 29 So. 28 Tu. 29 Wo. 28 Fr. 29 So. 29 Th. 28 Wo. 28 Fr. 29 So. 29 Th. 28 Wo. 28 Fr. 29 So. 29 Th. 28 Wo. 28 Fr. 29 So. 29 Th. 29 So. 29 Th. 29 So. 29 Th. 29 So. 29 Th. 20 Th	B. G. P. B. (4) 50 37 (6) 6 8 (0) 21 40 (1) 37 11 B. (2) 52 42 (4) 8 13 (5) 23 45 (6) 39 16 B. (0) 54 47 (2) 10 18 (3) 25 50 (4) 41 21 B. (5) 56 52 (9) 12 23 (1) 27 55 (2) 43 26 B. (3) 58 57 (5) 14 28 (6) 30 0 B. (0) 45 31 (2) 1 2 (3) 16 33 (4) 32 5 (5) 14 28 (6) 30 16 (7) 18 38 (1) 18 38 (2) 34 10 B. (3) 49 41 (6) 5 12 (6) 20 43 (6) 36 15 B. (1) 51 46 (3) 7 17 (4) 22 48 (5) 38 20 B. (6) 53 50 (1) 9 22	826 827 828 829 830 831 832 833 834 836 837 848 841 842 843 844 845 846 847 848 848 850 851 852 853 854 856 857 858 859 859	11 12 11 11 11 11 11 11 11 11 11 11 11 1	55 56 57 58 59 60 61 62 63 64 65 66 67 77 78 77 78 79 80 81 82 83 84 85 86 87 88 89 80 81 81 81 81 81 81 81 81 81 81	33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 58 69 60 60 60 60 60 60 60 60 60 60 60 60 60	244 250 267 288 299 301 323 334 353 368 401 444 445 447 447 447 447 447 447 447 447
1687 B.1688 1689 1690 1691 B.1692	Sa. Su. Tu. We Th.	4788 4789 4790 4791 4792	1609 1610 1611 1612 1613 1614	1094 1095 1096 1097 1098 1009	Tu. 29 We. 28 Th. 28 Sa. 29 Su. 29 Mo. 28	(2) 24 53 (3) 40 25 (6) 11 27 (0) 26 58 (1) 42 30	864 865 866 867	12 12	2 3 4 5 6 7	11 12 13 14 15 16	
1694 1694 1695 B.1696 1697 1698	Su. Mo 5 Tu. 5 We 7 Fr. 8 Sa.	4794 4795 4796 4797 4798 4799	1615 1616 1617 1618 1619 1620 1621	1100 1101 1102 1103 1104 1105 1106	Tu. 28 Th. 29 Fr, 29 Sa. 28 Mo. 29 Tu. 29 We. 29	B. (2) 58 1 (4) 13 33 (5) 29 3 B. (6) 44 36 (1) 0 6 (2) 15 33	869 870 871 872 873 874	11 12 12 11 11 11 12	8 9 10 11 12 13	17 18 19 20 21 22 23	1 1 1 1

SOLAR Y	-					DU SIDEREAL		1		-	
L	II.	III.	IV.	V.	VI.	VII.	VIII.		IX.	Х.	X
					ntrance of e Sidercal	the state		Cy	CLUE.		
YEAR		Zodiac.			- January III	# E #08	# A	-dag	Ė	22	1
	ditto.		N		98	nericter of the y- rat workly day o Indian how and of Sankränto ters constellari	Crole of 1000 years of FursionSma, begin- ning in September.	ti S	Grahapar	Vrihspati,	The 19 commit appoint
Спантан				SE	March	the day	584		Tin Control	는 음	13
183	day of	14	2	Bengalf San.	3.3	o o o o o o o o o o o o o o o o o o o	282	date	4800	-T	li
B	8	E.		4		to a sign	200		24	Ste of Bengal	1
	Pirst	Kall-yug.	Sign.	9	three 0.8,	9 4 4	12.5	Initial terni	Cycle of vrithf.	Cycle (Bet	1
A.D.	-	*	96	M	4			-		-	-
B.1700	Mo.	4801	1622	1107	Th. 29	B. (a) 46 40	876	12	15	24	1
1701	We.	4802	1623	1108	Sa., 29	(6) 2 11	877	12	16	25	1
1702	Th.	4803	1624	1109	Sn. 29	(0) 17 42	878	13	17	26	1
1703	Fr.	4804	1625	1110	Mo. 30	(1) 13 13 P (2) 19 15	879	13	18	27	1
B.1704	Sa.	4805	1626	1111	Tu. 29 Th. 29	B. (2) 48 45 (4) 4 16	880 881	12	19	28	i
1705 1706	Mo. Tu.	4806 4807	1628	11112	Fr. 29	(5) 19 47	882	13	21	30	2
1707	We.	4808	1629	1114	Sa. 30	(6) 35 18	883	13	22	31	2
B.1708	Th.	4809	1630	1115	Su. 29	B. (0) 50 50	884	12	23	32	2
1709	Sa.	4810	1631	1116	Tu. 29	(2) 6 21	885	12	24	33	2
1710	Su.	4811	1632	1117	We. 29	(3) 21 52	886	13	25	34	2
1711	Mo.	4812	1633	1118	Th. 30	(4) 37 23	887	13	26	35	2
B.1712	Tu.	4813	1634	1119	Pr. 29	B. (5) 52 55 (0) 8 26	888	12	27	36	2
1713	Th.	4814	1635	1120	Su. 29 Mo. 29	(0) 8 26 (1) 23 57	889 890	13	28	37	2
1714	Fr. Sa.	4815 4816	1636	1121	Tu. 30	(2) 39 28	891	13	30	39	1 2
1715 B.1716	Su.	4817	1688	1128	We. 29	B. (3) 55 0	892	12	31	40	3
1717	Tu.	4818	1639	1124	Fr. 29	(5) 10 31	893	13	32	41	13
1718	We.	4819	1640	1125	Sa. 29	(6) 26 2	894	13	33	42	3
1719	Th.	4820	1641	1126	Su. 30	(0) 41 33	895	13	34	43	3
B.1720	Fr.	4821	1642	1127	Mo. 29	B. (1) 57 5	896	12	35	44.	3
1721	Su.	4822	1643	1128	We, 29	(3) 12 36	897	13	36	46	13
1722	Mo.	4823	1844	1129	Th. 29	(4) 28 7 (5) 43 38	898	13	37	46	3
1723 P 1724	Tu, We.	4824	1645	1130	Fr. 30 Sa. 29	B. (6) 59 10	899 900	13	38	47	62 00
B.1724 1725	Fr.	4826	1647	1132	Mo. 29	(1) 14 41	901	13	40	49	3
1726	Sa.	4827	1648	1133	Tu. 30	(2) 30 12	902	13	41	50	4
1727	Su.	4828	1649	1134	We. 30	B. (3) 45 43	903	13	42	51	4
B.1728	Mo.	4829	1650	1135	Fr. 29	(5) 1 15	904	12	43	52	14
1729	We.	4830	1651	1136	Sa. 29	(6) 16 46	905	13	44	53	1
1730	Th.	4831	1652	1137	Su. 30	(0) 32 17	906	13	45	54	14
1731 D 1730	Fr.	4832	1653	1138	Mo. 30 We. 29	B. (1) 47 48 (3) 3 20	907	13	46	55	4
B.1732 1733	Mo.	4833	1654 1655	1139 1140	We. 29 Th. 29	(3) 3 20 (4) 18 51	909	13	47	56	4
1734	Tu.	4835	1656	1141	Fr. 30	(5) 34 22	910	13	49	58	4
1735	We.	4836	1657.	1142	Sa. 30	B. (6) 49 53	911	13	50	59	4
B.1736	Th.	4837	1658	1143	Mo. 29	(1) 5 25	912	13	51	60	A
1737	Sa.	4838	1659	1144	Tu. 29	(2) 20 56	913	13	52	1	10
1738	Su.	4839	1660	1145	We. 30	(3) 36 27	914	13	53	2	å
1789	Mo.	4840	1661	1146	Th. 30	B. (4) 51 58	915	13	54	3	0
B.1740	Tu.	4841	1662	1147	Sa. 30	(6) 7 30	916	13	55	4	15
$\frac{1741}{1742}$	Th. Fr.	4842 4843	1663	1148	Su. 29 Mo. 29	(0) 23 1 (1) 38 32	917	13	57	6	5
1743	Sa.	4844	1665	1150	Tu. 29	B. (2) 54 3	919	13	58	7	6
B.1744	Su.	4845	1666	1151	Th. 30	(4) 9 35	920	13	59	8	3
1745	Tu.	4846	1667	1162	Fr. 30	(5) 25 6	921	13	60	9	0
1746	We.	4847	1668	1153	Sa. 29	(6) 40 37	922	13	61	10	6
1747	Th.	4848	1669	1154	Su. 29	B. (0) 56 8	923	13	62	11	1
B.1748		4849	1670	1155	Tu. 30	(2) 11 40	924	13	63	12	
1749	Su.	4850	1671	1156	We. 29	(3) 27 11	925	13	64	13	

SOLAR Y	EVII*					DU SIDEREAL	YEARS	-			
I.	п.	III.	IV.	v.	VI.	VII.	VIII.		1X.	X.	X
d		Years the Sun Zodiac.			e Sidercal	of ditto.  of minute  or Oeto	84.		ches.		1 -2
P CHILISTIAN YEAR.	First day of ditto.	Kali-yug-	Súka.	Bengili San.	Initial date of all three in April N. S.	Character of the year.  First weekly day of ditto, Indian bour and minute of Sankrinta, or ⊙ens ters constellation Tr.	Creie of 1000 years of Parasurima, begin- ning in September.	Initial date in Sep- tember.	Cycle of Grahapari- vrithi.	Cycle of Vrihspatt, (Bengal seround),	The. (Tamal account).
17,50 1751 B,1752 1753 1753 1754 1756 1757 1758 B,1756 1761 1762 1763 B,1764 1765 1767 B,1768 1769 1777 1778 1774 1775 B,1776 1777 1778 1779 B,1780 1782 1783 1788 1788	Mo. Tu. We. Fr. Sa. Su. We. Th. Sa. Su. Tu. We. Th. Sa. Su. Tu. We. Th. Sa. Su. Tu. We. Tr. Sa. Su. Tu. We. Fr. Sa. Su. Su. Su. Su. Su. Su. Su. Su. Su. Su	4854 4855 4856 4857 4860 4861 4862 4863 4864 4865 4866 4867 4868 4869 4871 4872 4873 4874 4875 4876 4877 4878 4879 4880 4880 4883 4884	1672 1673 1674 1675 1676 1677 1678 1680 1681 1682 1683 1684 1685 1686 1687 1689 1690 1691 1692 1693 1694 1695 1696 1697 1698 1699 1700 1701 1702 1703 1704 1705	1157 1158 1159 1160 1161 1162 1163 1164 1165 1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182 1183 1184 1185 1186 1187 1189 1190	Th. 29 Fr. 9 Su. 9 Mo. 9 Tu. 9 Th. 10 Fr. 9 Su. 9 Tu. 10 We. 9 Tu. 10 Mo. 9 Fr. 9 Su. 10 Mo. 9 Fr. 10 Su. 9 We. 9 Fr. 10 Su. 9 We. 9 Fr. 10 Su. 9 We. 10 Th. 9 Fr. 9 Su. 10 Th. 9 Fr. 9 Su. 10 Tu. 9	B. G. P. (4) 42 42 B. (5) 58 13 (0) 13 46 (1) 29 16 B. (2) 44 47 (4) 0 18 (5) 15 50 (6) 31 21 B. (0) 46 52 (2) 2 23 (3) 17 35 (1) 33 26 B. (3) 48 57 (0) 4 28 (1) 20 0 (2) 35 31 B. (3) 51 2 (5) 6 33 (6) 22 5 (0) 37 36 B. (1) 53 7 (3) 8 38 (4) 24 10 (5) 39 41 B. (6) 55 12 (1) 10 43 (2) 26 15 (3) 41 46 B. (4) 57 17 (6) 12 48 (0) 28 20 (1) 43 51 B. (2) 59 22 (4) 14 53	926 927 928 929 930 931 932 933 934 935 936 937 938 949 941 942 943 944 945 946 947 948 949 950 951 952 953 954 956 957	13 13 13 13 13 13 13 13 13 13 13 14 13 13 13 14 13 13 13 14 13 13 13 14 13 13 14 13 13 14 13 13 14 13 14 14 15 16 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	65 66 67 68 69 70 71 72 73 74 75 76 77 78 80 81 82 83 84 85 86 87 88 89 90 1 2 3 4 4 5 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	14 15 16 17 18 19 20 21 22 22 23 24 25 26 27 28 29 30 31 32 33 33 34 53 63 73 84 40 40 41 42 43 44 44 45 46 46 46 46 46 46 46 46 46 46 46 46 46	111111111111111111111111111111111111111
B.1784 1785 1786 1787 B.1788	Mo. We. Th. Fr. Sa.	4886 4886 4887 4888 4889	1706 1707 1708 1709 1710	1191 1192 1193 1194 1195	Fr. 9 Sa. 9 Mo. 10 Tu. 10 We. 9	(5) 30 25 B. (6) 45 56 (1) 1 27 (2) 16 58 (3) 32 30	960 961 962 963 964	13 13 13 14 13	9 10 11 12	49 50 51 52	3 4 4 4
1789 1790 1791 B.1792 1793 1794	Mo. Tu. We. Th. Sa. Su.	4890 4891 4892 4893 4894 4895	1711 1712 1713 1714 1715 1716	1196 1197 1198 1199 1200 1201	Th. 9 Sa. 10 Su. 10 Mo. 9 Tu. 9 Th. 10	B. (4) 48 1 (6) 3 32 (0) 10 3 (1) 34 25 B. (2) 50 6 (4) 5 37	965 966 967 968 969 970	13 14 14 13 13 14	13 14 15 16 17 18 19	53 54 55 56 57 58 59	044444
1795 B.1796 1797 1798 1799	Tu. Th. Fr.	4896 4897 4898 4899 4900	1717 1718 1719 1720 1721	1202 1203 1204 1205 1206	Fr. 10 Sa. 9 Su. 9 Tu. 10 We. 10	(5) 21 8 (6) 36 40 B. (0) 52 11 (2) 7 42 (3) 23 13	971 972 973 974 975	14 13 13 14 14	20 21 22 23 24	60 1 2 3 4	5 5 5 5

SOLAR Y	EAR			PAR	T L-HIN	DU SIDEREAL	YEAR	5.	_	-	
I.	п.	III.	IV.	V.	VI.	VII.	VIII.		IX.	X.	X
		Year			ntrance of	4 44		CA	cras.		
YEAR.	-6	Zodiac.	i into Al	nes et un	e Sidercal	Character of the year. First weekly day of disto. Indian bear and minute of Sankrants, or Oen- ters constellation ?p.,	Paracurána, begin- ning in September.	Sep	Grahapari-	Vrihspati.	Do. (Tamul account.)
CHRIBITAN	ditto.			5/0	April	Character of the yes First weekly day of Indian bear and a of Sankranta, or tors constellation	1000 years arima, begi a Septembe	5	rahr	Vrihspa secount.	3600
180	8			Bengálí San.	age .	r of skly nke	SE 2	dub.		- #	Tinu
Į.	a a	100	No go	4	280	wee wee	日間日		E.B.	of	Ton
	First day of	Kall-yug.	SSEP.	91	three N. S.	Ind list	Cycle of Parser ning it	fuitfal	Cycle o	Cyele (Ben	0
A. D.	Pas .	-8	*	- 0		- A 0	0	A	0.	0	F
B.1800	Su.	4901	1722	1207	Th. 10	D. G. P. (4) 38 45	976	14	25	5	5
1801	Tu.	4902	1723	1208	Fr. 10	B. (5) 54 16	977	14	26	6	5
1802	We.		1724	1209	Su. 11	(0) 9 47	978	15	27	7	5
1803	Th.	4904	1725	1210	Mo. 11	(1) 25 18	979	15	28	8	5
B.1804	Fr.	4905	1726	1211	Tu. 10	(2) 40 50	980	14	29	9	5
1805	Su.	4906	1727	1212	We. 10	B. (3) 56 21	981	14	30	10	5
1806	Mo.		1728	1213	Fr. 11	(5) 11 52	982	15	31	11	6
1807	Tu.	4908	1729	1214	Sa. 11 Su. 10	(6) 27 23 (0) 42 55	983	15	32	12	1
B.1808 1809	Fr.	4909 4910	1730 1731	1215	Mo. 10	B. (1) 58 26	984	14	33	13	K
1810	Sa.	4911	1732	1217	We. 11	(3) 13 57	986	15	35	15	
1811	Su.	4912	1733	1218	Th. 11	(4) 29 28	987	15	36	16	
B.1812	Mo.	4913	1734	1219	Fr. 10	B. (5) 45 0	988	14	37	17	
1813	We.	4914	1785	1220	Su. 11	(0) 0 31	989	14	38	18	
1814	Th.	4915	1736	1221	Mo. 11	(1) 16 2	990	15	39	19	
1815	Fr.	4916	1737	1222	Tu. 11	(2) 31 33	991	15	40	20	
B.1816	Sa.	4917	1738	1223	We. 10	B. (3) 47 5	992	14	41	21	1
1817	Mo.		1739	1224	Fr. 11	(5) 2.36	993	14	42	22	1
1818	Tu.	4919	1740	1225	Sa. 11	(6) 18 7	994	15	43	23	1
1819	We.	1	1741	1226	Su. 11	(0) 33 38	995	15	44	24	1
B.1820	Th-	4921	1742	1227	Mo. 10 We. 11	B. (1) 49 10	996	14	45	25	1
1821 1822	Sa. Su.	4922	1743	1228	We. 11 Th. 11	(3) 4 41 (4) 20 12	997	15	46	26 27	1
1823	Mo.	4924	1745	1230	Fr. 11	(5) 35 43	999	15	47	28	1
B.1824	Tu.	4925	1746	1231	Sa. 10	B. (6) 51 15	1000	14	49	29	i
1825	Tb.	4926	1747	1282	Mo. 11	(1) 6 46	1	15	50	30	li
1826	Fr.	4927	1748	1233	Tu. 11	(2) 22 17	2	15	51	31	2
1827	Sa.	4928	1749	1234	We. 11	(2) 22 17 (3) 37 48	3	15	52	32	2
B.1828	Su	4929	1750	1235	Th. 10	B. (4) 53 20	4	14	53	33	2
1829	Tu.	4930	1751	1236	Sa. 11	(6) 8 51	6	15	54	34	2
1830	We.	4931	1752	1237	Su. 11	(0) 24 22	6	15	55	35	2
1831	Th.	4932	1753	1238	Mo. 11	(1) 89 53	7	15	56	36	2
B.1832	Fr.	4933	1754	1239	Tu. 10	B. (2) 55 25	8	14	57	37	2
1833	Su.	4934	1755	1240	Th. 11	(4) 10 56	9	15	58	38	2
1834	Mo.	4935	1756	1241	Fr. 11	(5) 26 27	10	15	59	39	2
1835 B.1836	Tu. We.	4936 4937	1757	1242	Sa. 11	(6) 41 58	11	15	60	40	2
1837	Fr.	4938	1758 1759	1243 1244	Su. 10 Tu. 11	B. (0) 57 30 (2) 13 1	12	14	61	41	3
1838	Sa.	4939	1760	1245	We. 11	(2) 13 1 (3) 28 32	13	15	62	42	3
1839	Su.	4940	1761	1246	Th. 11	(4) 44 3	15	15	64	43	3
B.1840			1762	1247	Fr. 10	B. (6) 59 36	16	14	65	45	3
1841	We.		1763	1248	Su. 11	(0) 15 6	17	15	66	46	3
1842	Th.	4943	1764	1249	Mo. 11	(1) 30 37	18	15	67	47	3
1843	Fr.	4944	1766	1250	Tu. 11	B. (2) 46 8	19	15	68	48	3
B.1844	Sa.	4945	1766	1251	Th. 11	(4) 1 40	20	14	69	49	3
1845	Mo.		1767	1252	Fr. 11	(5) 47 14	21	15	70	50	18
1846	Tu.	4947	1768	1253	Sa. 11	(6) 32 42	22	15	71	51	4
1847	We.	4948	1769	1254	Su. 11	B. (0) 48 13	23	15	72	52	4
B.1848	Th.	4949	1770	1255	Tu. 11	(2) 3 45	24	15	73	53	4
1849	Sa.	4950	1771	1256	We, 11	(3) 19 16	25	15	74	54	4

SOLAR Y	EAR.			PART	I.—HINDI	U SIDEREAL Y	EARS.				
I.	II.	III,	IV.	V.	VI.	VII.	VIII.		IX.	x.	XI
					ntrance of c Shiereal	ditto.			CLEA,		
1		Zodiac.			- productives	haracter of the year, net wookly day of ditto. Indian bear and minute of Mankrömn, or © en- ters constellation ??.	Sing.	Sep-	Ė	27	귶
CHRISTIAN YEAR	ditto.				평균	Character of the year. First woolly day of d findian bear and mi of Nankrinia, or G fees constellation	rele of 1000 years of Parasurássa, begin- ning la September.	15	Grabapari	Vrihepati,	Do. (Tamul netomat.)
33	9			- 3	of all April	d de de	par.		E	HH See	- 0
15	0 4	44.		25	date	F 4 448	548	date T.			1
Į.	9	Ē,	SOF.	祖	thing N.S.	at a digital	Parasum ring in	- X	zelo of vrithi.	cle of Bengal	A
w Tax	First day of	Kali-yug.	Saka.	Bengill San.	India N.N.	and and and	yele of 1000 Parasurásan ning in Sepi	Initial	Cyelo	Cycle (Ber	6
A. D.	-	- 15	- 90	-	н		9	4	0	0	0
1850	Su.	4951	1772	1257	Th. 11	D. G. P. (4) 34 47	26	15	75	55	44
1851	Mo.	4952	1773	1258	Fr. 11	B. (5) 50 18	27	15	76	56	4.5
B.1852	Tu.	4953	1774 1775	1259 1260	Sn. 11 Mo. 11	(0) 5 50 (1) 21 21	28	15	77	57	46
1853 1854	Fr.	4955	1776	1261	Tu. 11	(1) 21 21 (2) 36 52	29 30	15	78 79	58 59	48
1855	Sa.	4956	1777	1262	We. 11	B. (3) 52 23	31	15	80	60	49
B.1856	Su.	4957	1778	1263	Fr. 11	(5) 7 55	32	15	81	1-2	50
1857	Tu.	4958	1779	1264	Sa. 11	(6) 23 26	33	15	82	3	51
1858	We.	1000000	1780	1265	Su. 11	(0) 38 57	34	15	83	4	52
1859	Th.	4960	1781	1266	Mo. 11	B. (1) 54 28	35	15	84	5	53
B.1860	Fr. Su.	4961 4962	1782 1783	1267 1268	We. 11 Th. 11	(3) 10 0 (4) 25 31	36	15	85	6	54
1861 1862	Mo.	4963	1784	1269	Fr. 11	(4) 25 31 (5) 41 2	37 38	15	86 87	7 8	56
1863	Tu.	4964	1785	1270	Sa. 11	B. (6) 56 33	39	15	88	9	57
B.1864	We.	4965	1786	1271	Mo. 11	(1) 12 5	40	15	89	10	58
1865	Fr.	4966	1787	1272	Tu. 11	(2) 27 36	41	1.5	90	11	59
1866	Sa.	4967	1788	1273	We. 11	(3) 43 7	42	15	1	12	60
1867	Su.	4968	1789	1274	Th. 11	B. (4) 58 38	43	1.5	2	13	1
B.1868	Mo. We.	4969 4970	1790 1791	1276	Su. 11	(6) 14 10 (0) 29 41	44	15	8	14	3
1869 1870	Th.	4971	1792	1277	Mo. 11	B. (1) 45 12	46	15	5	16	4
1871	Fr.	4972	1793	1278	We. 12	(3) 0 43	47	15	6	17	5
B.1872	Sa.	4973	1794	1279	Th. 11	(4) 16 15	48	15	7	18	6
1873	Mo.	4974	1795	1280	Fr. 11	(5) 31 46	49	15	- 8	19	7
1874	Tu.	4975	1796	1281	8a. 11	B. (6) 47 17	50	15	9	20	8
1875	We.	4976	1797	1282	Mo. 12	(1) 2 48	51	15	10	21	9
B.1876	Th.	4977	1798	1283 1284	Tu. 11 We. 11	(2) 18 20 (3) 33 51	52	15	11	22	10
1877 1878	Su.	4978 4979	1800	1285	Th. 11	B (4) 49 22	53 54	15	12 13	23 24	11
1879	Mo.	4980	1801	1286	Sa. 12	(6) 4 53	55	16	14	25	13
B.1880	Tu.	4981	1802	1287	Su. 11	(0) 20 25	56	15	15	26	14
1881	Th.	4982	1803	1288	Mo. 11	(1) 35 56	57	15	16	27	16
1882	Fr.	4983	1804	1289	Tu. 11	B. (2) 51 27	68	16	17	28	16
1883	Sa.	4984	1805	1290	Th. 12	(4) 6 58	59	16	18	29	17
B,1884	Su. Tu.	4985 4986	1806 1807	1291 1292	Fr. 11 Sa. 11	(5) 22 30 (6) 38 1	60	15	19	30	18
1885 1886	We.	4987	1808	1293	Su. 11	B. (6) 38 1 B. (0) 53 32	62	15 15	20	31 32	19
1887	Th.	4988	1809	1294	Tu. 12	(2) 9 3	63	16	22	33	21
B.1888	Fr.	4989	1810	1295	We. 11	(3) 24 35	64	15	23	34	22
1889	Su.	4990	1811	1296	Th. 11	(4) 40 6	65	15	24	35	23
1890	Mo.	4991	1812	1297	Fr. 11	B. (5) 65 37	66	15	25	36	24
1891	Tu.	4992	1813	1298	Su. 12	(0) 11 8	67	16	26	37	25
B.1892	We.		1814	1299	Mo. 11	(1) 26 40	68	15	27	38	26
1893	Fr. Sa.	4994 4995	1815	1300 1301	Tu. 11	B. (3) 67 42	69	15	28	39	27
1894 1895	Su.	4996	1816 1817	1302	We. 11 Fr. 12	B. (3) 67 42 (5) 13 13	70 71	15 16	30	40	28
B.1896	Mo.	4997	1818	1303	Sa. 11	(6) 28 45	72	15	31	41	30
1897	We.	4998	1819	1304	Su. 11	(0) 44 16	73	15	32	43	31
1898	Th.	4999	1820	1305	Mo. 11	B. (1) 59 47	74	15	33	44	32
1899	Fr.	6000	1821	1306	We. 12	(3) 15 18	75	16	34	45	33
1900	Sa.	5001	1822	1307	Th. 12	(4) 30 15	76	16	35	46	34

			10.11		T II.—LUNI-S				******	_	VIV	_
I.	XI		XIII.	XIV.		XVL.	-	XVII.			XIX.	
CHRISTIAN YEAR.	Bogins on the new moon occurring	F3	Begins on the lated the lunar month Aswin.	initial of 44888 or 'bund' menth, in interestary year. (See p. 176.)	Date of the last mean ecquenction of O and S, whence the new luni-selar year commences.	Same date in Hinds Sidered month Chaites. (civ. acet.)	umber of days in the Side- real month Chaitra.	Brunnener Raa of India, Cey- lon, Ava, Siam, etc.	Vulgar Era (used Arracan, etc.)	East. the Cycle of 60.	Approximate commencement from the new most next before $\odot$ enters $M$ in old style.	a which interestary
8	Kaliyug.	Samvat.	Upper Upper India.	Charmeter mittal of month, i (See p. 1	A	ne dat nonth	mber oul m	on, An	Burmese also in A	CHINESE Year of 1	pproxim from t hefore style.	Teans in
A.D.	N.	ž	ADA	8-1-	OLD STYLE.	Sa.	N.	a a	A .	5,5	A.	F
B.1600	4701	1657	1008	A.S.	We. 5 Mar.	8	30	2143	962	€37	3 Feb.	
1601	4702	1668	1009	24,00	Mo. 23 Mar.	26	30	2144	963	038 039	23 Jan.	750
1602	4703	1659	1010		Sa. 13 Mar.	16	30	2146	964	039	13 Jan.	
1603	4704	1660	1011	A.A.	We. 2 Mar.	5	31	2146	965	<b>∺</b> 40	31 Jan.	
B.1604	4705	1661	1012	ARCHA!	Tu. 20 Mar.	23	30	2147	966	H 40	21 Jan.	
1605	4706	1662	1013		Sa. 9 Mar.	12	30	2148	967	X 42	7 Feb.	
1606	4707	1063	1014	A.V.	Th. 27 Feb.	2	30	2149	968	H43	28 Jan.	l l
1667	4708	1664	1015		We. 18 Mar.	21	31	2150	969	44	18 Jan.	
B.1608	4709	1665	1016	A.B.	Su. 6 Mar.	9	30	2151	970	45	5 Feb.	
1609	4710	1666	1017	24.371	Sa. 25 Mar.	28	30	2152	971	46	25 Jan.	1
1610	4711	1667	1018		We. 14 Mar.	17	30	2153	972	47	14 Jnn.	
1611	4712	1668	1019	A.S.	Mo. 4 Mnr.	27	31	2154	973	48	2 Feb.	١
B.1612	4713	1689	1020	*****	Su. 22 Mar.	25	30	2155	974	49	23 Jan.	
		1670	1021	8.9	Th. 11 Mar.	14	30	2156	975	50	9 Feb.	1
1613	4714			A.J.		3	31	2157	976	51	29 Jan.	1
1614	6715	1671	1022	May.	Mo. 28 Feb.			2158	977	52	19 Jan.	
1615	4716	1672	1023	10	Su. 19 Mar.	22	31			53	7 Feb.	1
B.1616	4717	1673	1024	A.C.	Fr. 8 Mar.	11	30	2159	978			
1617	4718	1674	1025	<b>開始</b> 失	We. 26 Mar.	29	30	2160	979	54	26 Jan.	
1618	4719	1675	1026	0.00	Mo. 16 Mar.	19	-31	2161	980	55	15 Jan.	1 7
1619	4720	1676	1027	A.S.	Fr. 5 Mar.	8	31	2162	981	56	3 Feb.	١.
B.1620	4721	1677	1028		Tb. 23 Mar.	26	30	2163	982	57	24 Jan.	
1621	4722	1678	1029	~999	Mo. 12 Mar.	15	30	2164	983	58	10 Feb.	1
1622	4723	1679	1030	A.A.	Sa. 2 Mar.	- 5	31	2165	984	59	31 Jan.	١.
1623	4724	1680	1031	L	Fr. 21 Mar.	24	31	2166	985	60	21 Jan.	
B.1624	4725	1681	1032		Tu. 9 Mar.	12	30	2167	986	e 1	8 Feb.	1
1625	4726	1682	1033	A.V.	Sa. 26 Feb.	1	30	2168	987	D 2	27 Jan.	1
1626	4727	1683	1034		Fr. 17 Mar.	20	31	2169	988	D 2	17 Jan.	١.
1627	4728	1684		A.B.	We. 7 Mar.	9	30	2170	989	H 4	5 Feb.	1
B.1628	4729	1685			Tu. 25 Mar.	28	30	2171	990	日 5	26 Jan.	1
1629	4730	1686			Sa. 14 Mar.	17	30	2172	991	M 6	14 Jan.	1 .
1630	4731	1687			We. 3 Mar.	6	31	2173	992	X 7	1 Feb.	1
1631	4732	1688			Tu. 22 Mar.	24	30	2174	993	T 8	22 Jan.	
B.1632	4733	1689			Su. 11 Mar.	14	30	2175	994	9	10 Feb.	
1633		1690			Th. 28 Feb.	3	30	2176	995	10	29 Jan.	1
1634					We. 19 Mar.		31	2177	996	11	19 Jan.	1
1635					Su. 8 Mar.		30	2178	997	12	6 Feb.	1
B.1636	4797	1693			Sa. 26 Feb.	29	30	2179	998	13	27 Jan.	1
					Th. 16 Mar.		30					1
1637					Mo. 5 Mar.		31	2181				1
1638					Su. 24 Mar.		30	2182		16		1
1639							30	2183	1002			1
B.1640					Th. 12 Mar.		70.0					1
1641					Tu. 2 Mar.		31	2184				١,
1642					Su. 20 Mar.	2.2	31	2185	1004			1
1643	4744			logo.	Fr. 10 Mar.		30		1005		8 Feb.	
B.1644	4745				Th. 27 Feb.		30	2187	1006		28 Jan.	1
1645	4746	1700	1053	3	Mo. 17 Mar.		31	2188	1007	100	17 Jun.	1
1646					Fr. 6 Mar.	9	31	2189	1008		4 Feb.	1
1647		A comment			Th. 25 Mar.	27	30	2190	1009	24		1
B.1648					Tu. 14 Mar.		30	2191	1010	25	15 Jan.	1
	4750		1057		Sa. 3 Mar.		31			100		1

(This table includes the Burmose lund-solar era, which accords with the Hindd, and the Chisese, which begins one most satisf.) The Vildynti reveale year of Grassa agrees mass and with the Pasil; but its divisions are solar, being the same as commun VI, until a.p. 1806, after which it is

	772		wire.		r II.—LUNI-80				Verr	T .	VIV	
I.		п.	XIII.	XIV.	xv.	XVI.		XVII.	XVII	4	XIX.	1.60
CHRISTIAN YEAR.	Begins on the new moon occurring		Begins on the 1st of the baser month Aswin,	Character of the year, and laitful of Additor 'Josua' month, in intereshiry year, (See p. 176.)	Date of the last mean certiferation of Count continues the new funisheder year commerces.	Same date in Hindú Sideresi menth Chritra. (etr. sect.)	umber of days in the Side- real month Chaltra.	Depouser EnA of India, Coy- lon, Ava, Slam, etc.	Vulent Em (used Arracom, etc.)	Cursism Eng. Year of the Cycle of 00,	Approximate commentention from the new aloon next before ⊙ enters ¥ in old style.	which interrulary
∄ <b>∆.</b> D.	Kaliyug	Sament,	Pasti of Upper India.	Character Baitlal of months i (See p. 1	OLD STYLE.	Same dat menth	Number of real mont	Bernman lon, Ar	Burnson also in	Curston End. Year of the Cy	Appreadly from t before style.	Years in
1650	4751	1707	1058		Fr. 22 Mar.	24	30	2193	1012	27	22 Jan.	
1651	4752	1708	1059	Bounes of	Tu. 11 Mar.	13	30	2194	1013	28	9 Feb.	
B.1652	4753	1709	1060	A.J.	Su, 29 Feb	3	30	2195	1014	29	30 Jan.	١.
1653	4754	1710	1061		Sa. 19 Mar.	22	31	2196	1015	30	19 Jnn.	١.
1654	4755	1711	1062	A.C.	We. 8 Mar.	10	30	2197	1016	31	6 Feb.	
1655	4756	1712	1003		Tu. 27 Mar.	29	30	2198	1017	32	27 Jun.	
B.1656	4757	1713	1064		Sa. 15 Mar.	18	30	2199	1018	33	16 Jan	
1657	4758	1714	1065	A.S.	Th. 5 Mar.	8	31	2200	1019	34	3 Feb.	
1658	4759	1715	1066	1	Tu 23 Mar.	25	30	2201	1020	85	23 Jan.	
1659	4760	1716	1067		Su. 13 Mar.	15	30	2202	1021	36 37	13 Jan. 31 Jan.	3
B.1660	4761	1717	1068	A.A.	Th. 1 Mar.	4	30	2203 2204	1022	38	20 Jan.	
1661	4762	1718	1069		We 20 Mar. Sn. 9 Mar.	23	30	2205	1024	39	7 Feb.	
1662	4763	1719	1070	A.Y.	Th. 26 Feb.	71	30.	2206	1025	40	28 Jan.	
1663	4764 4765	1720 1721	1071	6.0	Th. 17 Mar.	20	30	2:207	1026	41	18 Jan.	
1005	4766	1722	1073	A.B.	Mo. 6 Mar.	0.9	31	2208	1027	42	4 Feb.	
1665 1666	4767	1723	1074	200	Su. 25 Mar.	27	30	2209	1028	43	25 Jan.	
1667	4768	1724	1075	流へい	Th. 14 Mar.	16	30	2210	1029	44	14 Jan.	
B.1668	4769	1725	1076	A.S.	Tu. 3 Mar.	6	31	2211	1030	4.5	2 Feb.	
1669	4770	1726	1077	Carlo -	Mo. 22 Mar.	25	31	2212	1031	46	22 Jan.	
1670	4771	1727	1078	3650 L	Fr. 11 Mar.	13	30	2213	1032	47	9 Feb.	
1671	4772	1728	1079	A.J.	Tu. 28 Feb.	2	30	2214	1033	48	29 Jan.	
B.1672	4773	1729	1080	7466	Mo. 18 Mar.	21	31	2215	1034	49	19 Jan.	٠.
1673	4774	1730	1081	A.C.	Sa. 8 Mar.	11	31	2216	1035	50	6 Feb.	
1674	4775	1731	1082		Fr. 27 Mar.	29	30	2217	1036	51	27 Jan.	١.
1675	4776	1732	1083		Tu. 16 Mar.	18	30	2218	1037	52	16 Jan.	
B.1676	4777	1733	1084	A.8.	Sa. 4 Mar.	7	31	2219	1038	53	3 Feb.	
1677	4778	1734	1085	1,1000000	Fr. 23 Mar.	26	31	2220	1039	54	23 Jan.	
1678	4779	1735		200	We, 13 Mar.	15	30	2221	1040	55	13 Jan. 31 Jan.	١.
1679	4780	1736	1087	Α.Λ.	Su. 2 Mar.	4	30	2222	1041	56		
B.1680	4781	1737	1088		Sa, 20 Mar.	23	31	2223 2224	1042	57 58	21 Jan. 7 Feb.	1
1681	4782	1738		A.C.A.1	We. 9 Mar. Tu. 23 Mar.	11	30	2224	1044	89	28 Jan.	
1682	4783	1739			Sa. 17 Mar.	30	30	2226	1045	60	17 Jan.	
1683	4784	1740		4.0	Th. 6 Mar.	9	31	2227	1046	⊴ 1	5 Feb.	10
B.1684	4785	1741	1092	A.B.	We. 25 Mar.	27	30	2228	1047	Cycle,	25 Jan.	
1685 1686	4786	1749	1093		Su. 14 Mar.	16	30		1048	Cycl	14 Jan.	
1687	4788		1005	A.A.	Th. 3 Mar.	5	30		1049		1 Feb.	
B.1688	4789		1096	24.341	We. 21 Mar.	24	31	2231	1050	XIV	22 Jan.	
1689	4790		1097	1	Mo. 11 Mar.	13	30	2232		N 6	9 Feb.	
1690	4791	1747		A.V.	Fr. 26 Feb.	2	30	2233	1052	1 7	28 Jan.	
1691	4792	1748	1		Th. 19 Mar.	21	30	2234	1053	8	19 Jan.	
B.1692	4793	1749		A.B.	Mo. 7 Mar.	10	31	2235	1054	9	6 Feb.	
1693	4794	1750		1200 M	Su. 26 Mar.	28	30	2236	1055	10	26 Jan.	
1694	4795	1751			Fr. 16 Mar.	18	30	2237	1056	11	16 Jan.	
1695		1752		A.S.	Tu. 5 Mar.	7	30	2238	1057	12	3 Feb.	
B.1696		1763		10000000	Mo. 23 Mar.	26	31	2239	1058	13	24 Jan.	
1697	4798	1754			Fr. 12 Mar.	14	30	2240	1059	14	10 Feb.	
1698				A.J.	We. 2 Mar.	4	30	2241	1060	15	31 Jan.	1
1699		1756			Tu. 21 Mar.	23	31	2242	1061	16	21 Jan	1 *

<sup>&</sup>lt;sup>1</sup> In the current year K. Y. 4785, the months Chaitra and Aswina are repeated, and the month Agrahama is knhape or expunged.

*	-	TT.	хии.	YIV	YY	XVI	1	XVII	XVIII.		XIX.	
I.	-	II.		XIV.	XV.	Last on the	_	_				1
CIRRIENTAS TRAB.	Begins on the new most occurring	Visukha deresal y	Begins on the let of the lunar month Aswin.	initial of Adak or bound initial of Adak or bound, in intereshing year. (See p. 178.)	ate of the last mean conjunction of O and I, whence the new lumi-solar year com- mentes.	Same date in Hindd Sideecal month Chaitra, (efv. acet.)	Number of days in the Side- real asouth Chaltra.	Bunnerser Ena of India, Cey-	Burnese Vulgar Era (used also in Arracan, etc.)	CHINIMB ELA. Year of the Cycle of 60.	Approximate commescement from the new mose next before ⊙ enters ∺ in old style.	which interestary
- The	Kaliyug.	Samvat.	Upper Upper Inda.	Character initial of mouth, in (See p. 17	Δ	month	umber real na	troperre lon, Av	urmese also in	CHINDSE Year of t	pproxip from t heforo style.	Years in
A.D.	=	Æ	2	5	OLD STYLE.	<u></u>	<u>×</u>	-	-	0 ×	4	-
B.1700	4801	1757	1108	A.C.	Sa. 9 Mar.	12	31	2243	1062	17	8 Feb.	
1701	4802	1758	1109	A.V.	Fr. 28 Mar.	30	30	2244	1063	18	28 Jan. 17 Jan.	
1702	4803	1769	1110	10	Tu. 17 Mar.	19	30	2246 2246	1064	19	4 Feb.	-
1703	4804	1760	1111	A.S.	Sa. 6 Mar.	8	31		1065	20	25 Jan.	
B.1704	4805	1761	1112		Fr. 24 Mar.	27	31	2247 2248	1066	21	14 Jan.	
1705	4806	1762	1113	1. 7	We. 14 Mar.	16	30	2248	1067	22		
1706	4807	1763	1114	A.J.	Su. 3 Mar.	5	30	2249	1068	23	1 Feb.	
1767	4808	1764	1115		Sa. 22 Mar.	24	31	2250	1069	24	22 Jan.	٠.
B.1708	4809	1765	1116	15543	We, 10 Mar.	12	30	2251	1070	2.5	9 Feb.	
1709	4810	1766	1117	A.C.	Mo. 28 Feb.	2	30	2252	1071	26	29 Jan.	١.
1710	4811	1767	1118	0,000	Sa. 18 Mar.	20	30	2253	1072	27	18 Jan.	
1711	4812	1768	1119	A.B.	Th. 8 Mar.	10	31	2254	1073	28	6 Feb.	
B.1712	4813	1769	1120		We, 26 Mar.	28	30	2255	1074	29	27 Jan.	1.
1713	4814	1770	1121	6 0	Su. 16 Mar.	17	30	2256	1075	30	15 Jan.	
1714	4815	1771	1122	A.A.	The 4 Mar.	-6	30	2:257	1076	31	2 Feb.	
1715	4816	1772	1123	OLA"	We. 23 Mar.	25	31	2:258	1077	32	23 Jan.	1
B.1716	4817	1773	1124	78	Mo. 12 Mar.	14	30	2259	1078	33	13 Jan.	
1717	4818	1774	1125	A.V.	Fr. 1 Mar.	3	30	2260	1079	34	30 Jan.	
1718	4819	1775	1126	His A.	Th. 20 Mar.	22	30	2261	1080	35	20 Jan.	
1719	4820	1776	1127	1999	Tu. 10 Mar.	11	31	2262	1081	36	8 Feb.	
B.1720	4821	1777	1128	A.B.	Sa. 27 Feb.	0	30	2263	1082	37	28 Jan.	
1721	4822	1778	1129	100 FEB.	Fr. 17 Mar.	19	30	2264	1083	38	17 Jan.	
1722	4823	1779	1130	A.S.	Tu. 6 Mar.	8	30	2265	1084	39	4 Feb.	1
1723	4824	1780	1131	281.04	Mo. 25 Mar.	27	31	2266	1085	40	25 Jan.	1
B.1724	4825	1781	1132		Fr. 13 Mar.	15	30	2267	1086	41	15 Jan.	4
1725	4826	1782	1133	A.J.	We. 3 Mar.	5	30	2268	1087	42	2 Feb.	1.
1726	4827	1783	1134	And .	Tu. 22 Mar.	24	31	2269	1088	43	22 Jan.	1
1727	4828				Sa. 11 Mar.		31	2270	1089	44	11 Jan.	1 3
		1784	1135	10		13				45	30 Jan.	1 "
B.1728	4829	1785	1136	A.C.	We. 28 Feb.	1	30	2271	1090	46	18 Jan.	17
1729	4830	1786	1137	4.0	Tu. 18 Mar,	20	30	2272	1091		6 Feb.	1 '
1730	4831	1787	1138	A.S.	Su. 8 Mar.	10	31	2273	1092	47	27 Jan.	
1731 B 1732	4832	1788	1139	100	Fr. 29 Mar.	28	31	2274	1093	48	16 Jan.	1.
B.1732	4833	1789	1140		We. 15 Mar.	17	30	2275	1094	49	3 Feb.	1 5
1733	4834	1790	1141	A.A.	Su. 4 Mar.	6	30	2276	1095	50		
1734	4835	1791	1142		Sa. 23 Mar.	25	31	2277	1096	61	23 Jan.	1.
1735	4836	1792	1143	1	We. 12 Mar.	14	31	2278	1097	52	12 Jan.	Ι.
B.1736	4837	1793			Mo. 1 Mar.	3	30	2279	1098	53	31 Jan.	1.
1737	4838	1794			Su. 20 Mar.	22	30	2280	1099		20 Jan.	
1738	4839	1795			Th. 9 Mar.	11	31	2281	1100		7 Feb.	
1739	4840	1796			We, 28 Mar.	29	30	2282	1101		28 Jan.	1
B.1740	4841	1797			Su, 16 Mar.	18	30	2283	1102		17 Jan.	
1741	4842	1798			Fr. 6 Mar.	8	30	2284			4 Feb.	1
1742	4843	1799	1150		Th. 25 Mar.	27	31	2285	1104		25 Jan.	1
1743	4844	1800	1151		Mo. 14 Mar.	15	30	2286	1105	60	14 Jan.	١.
B.1744	4845	1801	1152	A.J.	Fr. 2 Mar.	4	30	2287	1106	S 1	2 Feb.	
1745	4846	1802			Th. 21 Mar.	23	30	2288	1107		21 Jan.	
1746	4847	1803			Tu. 11 Mar.	13	31	2289	1108		11 Jan.	1 2
1747	4848	1804			Sa. 28 Feb.	1	30	2290	1109		30 Jan.	Ι.
B.1748	4849	1805			Fr. 18 Mar.	20	30	2291	1110		20 Jan.	1 7
							- 1000				· AND WHEEL	1 7

In the current year K. Y. 4783, the months Chaitra and Aswina are repeated, and the month Agrahana is xeys or expunged.

I.	*	II.	XIII.	XIV.	xv.	XVI.	31	XVII.	XVII	r.	XIX.	_
-	-	-								-	-	16
CURBITIAN YEAR.	on the	let Vicakha of the Sidoreal year.	Begins on the 1st of the Junar month Aswin.	initial of Adhik or 'loan', and month, in intereshary year, (See p. 173.)	ute of the last mean conjunction of O and I, whence the new lami-solar year com- mences.	Same date in Hiadd Sidereal month Chaitra, (elv. acct.)	f days in the Side- ofh Chaitra,	Ena of India, Cey-	Vulgar Era (used Arradan, etc.)	CHINESE Eas. Year of the Cycle of 60,	Ascertained commencements from the new mean sext before $\odot$ enters $\Re$ in new style.	Intercalary Year and No. of
ā a.d.	Kaliyug	Samend.	Pash of Upper India.	Character Initial of Booth, I (See p. )	NEW STELE.	Same date month (	Number of de real month	Burnitst Ena of lon, Ava, Siam,	Burmese also in A	CHINESE ERA. Year of the Cy	Ascertained of from the before © estyle.	Intercalor
1750	4851	1807	1158		Mo. 6 Apr.	28	31	2293	1112	₫ 7	8 Feb.	
1751	4852	1808	1159		Sa. 27 Mar.	17	30	2294	1113	yele.	28 Jan.	6
B.1752	4853	1809	1160	A.A.	We, 15 Mar.	6	30	2295	1114	0 9	15 Feb.	1
1753	4854	1810	1161	10000010	Tu. 3 Apr.	25	30	2296	1115	> 10	4 Feb.	1
1754	4855	1811	1162		Sa. 23 Mar.	15	31	2297	1116	M 11	24 Jan.	1 4
1755	4856	1812	1163	A.V.	Th. 13 Mnr.	3	30	2298	1117	X 11 12	12 Feb.	
B.1756	4857	1813	1164		Tu. 30 Mar.	21	30	2299	1118	13	1 Feb.	19
1757	4858	1814	1165	A.B.	Su. 20 Mnr	11	31	2300	1119	14	19 Feb.	1
1758	4859	1815	1166		Sa. 8 Apr.	30	31	2301	1120	15	9 Feb.	l
1759	4860	1816	1167	10000	We. 28 Mar.	18	30	2302	1121	16	30 Jan.	- 6
B.1760	4861	1817	1168	A.S.	Su. 16 Mar.	7	30	2303	1122	17	18 Feb.	
1761	4862	1818	1169	1,000,0	Sa. 4 Apr.	26	31	2304	1123	18	6 Feb.	
1762	4863	1819	1170	CONTRACT AN	Th. 25 Mar.	16	31	2305	1124	19	26 Jan.	5
1763	4864	1820	1171	A.J.	Mo. 14 Mar.	4	30	2306	1125	20	14 Feb.	
3.1764	4865	1821	1172	10	Su. 1 Apr.	23	30	2307	1126	21	3 Feb.	0.0
1765	4866	1822	1173	10.00	Th. 21 Mar.	12	31	2308	1127	22	21 Jan.	2
1766	4867	1823	1174	A.C.	Tu. 11 Mar.	1	30	2309	1128	23	9 Feb.	
1767	4868	1824	1175	BB-2V	Mo. 30 Mar.	20	30	2310	1129	24	30 Jan.	7
3.1768	4869	1825	1176	A.S.	Fr. 18 Mar.	9	30	2311	1130	25	17 Feb.	
1769	4870	1826	1177	18/6h	Th. 6 Apr.	28	-31	2312	1131	26	6 Feb.	
1770	4871	1827	1178	ECCOLD.	Mo, 26 Mar.	16	30	2313	1132	27	26 Jan.	4
1771	4872	1828	1179	A.A.	Sa. 16 Mar.	6	30	2314	1133	28	14 Feb.	i
3.1772	4873	1829	1180		Fr. 3 Apr.	25	30	2315	1134	29	3 Feb.	١.
1773	4874	1830	1181	2.44	Ta 23 Mar.	14	31	2316	1135	30	22 Jan.	1
1774	4875	1831	1182	A.V.	Sa. 12 Mnr.	2	30	2317	1136	31	10 Feb. 30 Jan.	10
1775	4876	1832	1183	4.70	Fr. 31 Mar.	21	30	2318	1137	32	18 Feb.	1,
1.1776	4877	1833	1184	A.B.	We. 20 Mar.	10	30	2319	1138	33	7 Feb.	1
1777	4878	1834	1185		Mo. 7 Apr.	29	31	2320 2321	1139	35	27 Jan.	1
1778 1779		1835	1186	10	Sa. 28 Mar.	18	30	2322	1141	36	15 Feb.	1
0.1780	4880	1836	1187	A.S.	We. 17 Mar. Tu. 4 Apr.	26	30	2323	1142	37	5 Feb.	
1781	4882	1837	1188		Sa. 24 Mar.	15	31	2324	1143	38	24 Jan.	1
1782	4883		1189	A.J.	Th. 14 Mar.	4	30.	2325	1144	39	13 Feb.	
1783	4884	1839	1190	41.00	We. 2 Apr.	23	30	2326	1145	40	3 Feb.	1
3.1784	4885	1841	1192		Su. 21 Mar.	12	31	2327	1146	41	23 Jan.	1 3
1785	4886	1842	1193	A.C.	Th. 10 Mar.	1	31	2328	1147	42	10 Feb.	1
	4887		1194	20.05	We. 29 Mar.	19	30	2329		43		1
1787			1195	A.S.	Mo. 19 Mar.	9	30	2330	1149	44	19 Feb.	1
3.1788			1196	20.01	Su. 6 Apr.	28	31	2331		45	8 Feb.	
1789			1197		Th. 26 Mar.	17	31	2332		46	27 Jan.	1
1790			1198	A.A.	Mo. 15 Mar.	5	30	2333		47	15 Feb.	
1791		1848	1199	23.200	Su. 3 Apr.	24	30	2334		48	4 Feb.	
3.1792	4893	1849	1200		Fr. 23 Mar.	14	31	2335		49	24 Jan.	1
1793	4894	1850	1201	A.V.	Tu. 12 Mar.	3	31		1155	50	11 Feb.	1
1794	4895	1851	1202	-500	Mo. 31 Mar.	21	30	2337		51	31 Jan.	100
1795	4896		1203	A.B.	Fr. 20 Mar.	10	30		1157	52	21 Jan.	1
8.1796		1853		-	Th. 7 Apr.	29	31		1158	53	9 Feb.	
1797	4898	1854	1205	7555	Tu. 28 Mar.	18	30		1159	54	28 Jan.	1
1798		1855		A.S.	Sa. 17 Mar.	7	30		1160	55	16 Feb.	1
1799			1207	10000	Fr. 5 Apr.	26	30		1161	56	5 Feb.	1

<sup>&</sup>lt;sup>1</sup> The particulars of the Chinese years from a.b. 1723 to 1335 inclusive, are taken from Bayer's 'Parergon Sinterm.'s Those from 1745 to 1818, from """ once calendar:—and some few subsequent years from netheatic sources. The rest are supplied b

	_				PART IL-LUY	NI-80	LAR	YEAR.	-		315000	
L	-	II.	XIII.	XIV.	XV.	XVI.		XVII.	XVII		XIX.	
CHRISTIAN YEAR.	Bogins on the moon occur	lst Visakha of the Socreal year.	Begins on the lated the lunar month Aswin.	r of the year, and of Adkië or 'lound' in interestary year, 170.)	Date of the last mean conjunction of Oand y whence the new bull-solar year com- menters.	Same date in Hinds Sidereal month Chaltra, (civ. acet.)	Number of days in the Side- real month Chairn.	Bounness Eng of India, Cay-	Vulgar Era (used Arracan, etc.)	Cursons Exa.  Tour of the Cycle of 00.	ined amencement the moon next o © enters X in now	Intercalary year and No. of intercalated months
δ A. D.	Kaliyag.	Samvat.	Pasti of Upper India.	Character of initial of , month, in (See p. 173	NEW STYLE.	Same dat	Number real me	Boussess lon, Av	Burmese also in A	CREEKE EAC. Year of the C.	Ascertained from the before © style.	Intercals
					m. ac 34			2010	1000			
1800 1801	4901 4902	1857 1858	1208 1209	A.J.	Tu. 25 Mar. Su. 15 Mar.	15	31 30	2343 2344	1162 1163	67 68	25 Jan. 13 Feb.	4
1802	4903	1859	1210	4.4	Fr. 2 Apr.	22	30	2345	1164	59	3 Feb.	
1803	4904	1860	1211		We. 23 Mar.	12	30	2346	1165	60	23 Jan.	3
B.1804	4905	1861	1212	A.C.	Su. 11 Mar.	1	31	2347	1166		11 Feb.	
1805	4906	1862	1213		Sa. 30 Mar.	19	30	2348	1167	Oyele.	31 Jan.	6
1806	4907	1863	1214	A.S.	We. 19 Mar.	8	30	2349	1168	0 3	19 Feb.	1
1807	4908	1864	1215	746540	Tu. 7 Apr.	27	30	2350	1169	H 4	8 Feb.	
B.1808	4909	1865	1216	floors -	Su. 27 Mar.	17	31	2351	1170	5 5	29 Jan.	5
1809	4910	1866	1217	A.A.	Th. 16 Mar.	5	30	2352	1171	TAXXI	16 Feb.	
1810	4911	1867	1218		We. 4 Apr.	24	30	2353	1172		6 Feb.	3
1811	4912	1868	1219		Su. 24 Mar.	13	30	2354	1173	8	27 Jan.	
B.1812	4913	1869	1220	A.V.	Fr. 13 Mar.	3	31	2355	1174	9	15 Feb.	
1813	4914	1870	1221	" S. Dr.	Th. 1 Apr.	21	30	2356	1175	10	3 Feb.	9
1814	4915	1871	1222	A.B.	Mo. 21 Mar.	10	30	2357	1176	11	21 Feb.	
1815	4916	1872	1223	307	Su. 9 Apr.	29	31	2358	1177	12	10 Feb.	
B.1816	4917	1873	1224		Th. 28 Mar.	18	31	2359	1178	13	30 Jan.	6
1817	4918	1874	1225	A.S.	Tu. 18 Mar. Su. 5 Apr.	7	30	2360	1179	14	17 Feb.	
1818 1819	4919	1875	1226	Eli, mai	Su. 5 Apr. Fr. 26 Mar.	25	31	2361 2362	1180	15	6 Feb.	-
B.1820	4920 4921	1876 1877	1227 1228	A.J.	Tu. 14 Mar.	15	31	2363	1181	16 17	27 Jan.	3
1821	4922	1878	1229	A.d.	Mo. 2 Apr.	22	30	2364	1182 1183	18	13 Feb. 2 Feb.	
1822	4923	1879	1230	1466	Sa. 23 Mar.	12	30	2365	1184	19	23 Jan.	4
1823	4924	1880	1231	A.C.A.I	We, 12 Mar.	ī	31	2366	1185	20	10 Feb.	
B.1824	4925	1881	1232	NET WHERE	Tu. 30 Mar.	20	31	2367	1186	21	31 Jan.	
1825	4926	1882	1233	A.S.	Sa. 19 Mar.	8	30	2368	1187	22	17 Feb.	5
1826	4927	1883	1234		Fr. 7 Apr.	27	30	2369	1188	23	7 Feb.	"
1827	4928	1884	1235	100	Tu. 27 Mar.	16	31	2370	1189	24	27 Jan.	6
B.1828	4929	1885	1236	A.A.	Su. 16 Mar.	6	30	2371	1190	25	15 Feb.	
1829	4930	1886	1237		Sa. 4 Apr.	24	30	2372	1191	26	4 Feb.	7
1830	4931	1887	1238		We, 24 Mar.	13	30	2373	1192	27	24 Jan.	-
1831	4932	1888	1239	A.V.	Su. 13 Mar.	2	31	2374	1193	28	11 Feb.	
B.1832	4933	1889	1240		Sa. 31 Mar.	21	30	2375	1194	29	1 Feb.	9
1833	4934	1890	1241	A.B.	Th. 21 Mar.	10	30	2376	1195	30	20 Feb.	0.5
1834	4935		1242		We. 9 Apr.	29	30	2377	1196	31	8 Feb.	200
1835	4936	1892	1243	2.2	Su. 29 Mar.	18	31	2378	1197	32	29 Jan.	6
B.1836	4937	1893	1244	A.S.	Th. 17 Mar.	6	30	2379	1198	33	16 Feb.	4000
1837		1894			We. 5 Apr.	25	30	2380	1199	34	5 Feb.	30
1838		1895	1246	4.4	Mo. 26 Mar.	15		2381		35	26 Jan.	3
1839 B.1840		1896	1247	A.J.	Fr. 15 Mar.	4		2382		36	13 Feb.	
1841		1897	1248		Th. 2 Apr. Mo. 22 Mar.	22		2383	10000	37	3 Feb.	4
1842		1899	1249 1250	40	Sa. 12 Mar.	11		2384		38	20 Feb.	
1843		1900	1251	A.C.	Th. 30 Mar.	10	31	2385 2386	1204	39	10 Feb.	
B.1844		1901	1252	A.S.	Tu. 19 Mar.	19	31	2387	1206	40	30 Jan.	5
1845	4946		1253	41.104	Mo. 7 Apr.	27	30	2388	1207	42	18 Feb. 7 Feb.	
1846	4947		1284		Fr. 27 Mar.	16		2389	1207	43		
1847	4948		1255	A.A.	Tu. 16 Mar.	5		2390	1209	11/20/201	27 Jan.	6
B.1848	4949		1256	-1.11.	Mo. 3 Apr.	23		2391	1210	44	14 Feb. 4 Feb.	
1849	4950		1257		Sa. 24 Mar.	13	30	2392		46	24 Jan.	7
	2000	2500	1 7201	100	well with mining	*0	00		****	30	or can.	1

<sup>&</sup>lt;sup>1</sup> The expunged month in the 4924th year of the Kaliyug fell on Agrahayan, otherwise Margasius, and the intercalated months were Aswina and Chaltra of the cusuing year.

I.	XI	6 3	XIII.	XIV.	xv.	XVI.		XVII.	xvII	I.	XIX.	
				_			1 2	and the same		-	_	L
1851 4	Bagins	ist Visakha of the Siderreal year.	Begins on the 1st of the bunar month Aswin.	nameter of the year, and initial of Addids or Yound? month, in internalizy year. (See p. 175.)	Date of the last mean conjunction of O and 3. whence the new luni-solar year com- mences.	Same date in Hindd Sidered month Chaftrn, (civ. act.)	er of days in the Side- month Chaiten.	r ERA of India, Cey- n, Slam, etc.	Burmese Vulgar Era (used also in Arracan, ctc.)	CREATER EAS.  Year of the Cycle of 60.	Approximate ecomemernent from the new most next before $\odot$ enters $\Re$ in new style.	which interculary
	Kaliyug.	Samvat.	Past of Upper India.	Character initial or month, (See p.	New Street.	Samo dut month	Number of real mont	Bunnary Esa of lon, Avn, Slam,	Burmese also in	Courses End. Year of the Cy	Approxis from ti before ( style.	Years in
1850	4951	1907	1258	A.V.	We. 13 Mar.	2	31	2393	1212	47	11 Feb.	-
	4952	1908	1259	24. 11.	Tu. 1 Apr.	21	31	2394	1213	48	1 Feb.	
B.1852	4953	1909	1260	A.B.	Sa. 20 Mar.	9	30	2395	1214	49	19 Feb.	
1853	4954	1910	1261	7.00	Fr. 8 Apr.	28	30	2396	1215	50	8 Feb.	
1854	4955	1911	1262	L	We. 29 Mar.	18	31	2397	1216	51	29 Jan.	
1855	4956	1912	1263	A.S.	Su. 18 Mar.	6	30	2398	1217	52	16 Feb.	
B.1856	4957	1913	1264	100000	Sa. 5 Apr.	25	30	2399	1218	53	6 Feb.	
1857	4958	1914	1265		We. 25 Mar.	14	30	2400	1219	54	25 Jan.	
1858	4959	1915	1266	A.J.	Mo. 15 Mar.	4	31	2401	1220	55	13 Feb.	
1859	4960	1916	1267		Su. 3 Apr.	22	30	2402	1221	56	3 Feb.	
B.1860	4961	1917	1268	A.C.	Th. 22 Mar.	11	30	2403	1222	57	23 Jan.	
1861	4962	1918	1269	A.C.	We. 10 Apr.	30	30	2404	1223	58	10 Feb.	
1862	4963	1919	1270		Su. 30 Mar.	19	31	2405	1224	59	30 Jan.	
1863	4964	1920	1271	A.S.	Fr. 20 Mar.	8	30	2406	1225	60	18 Feb.	
B.1864	4965	1921	1272	21.10.15	We. 6 Apr.	.26	30	2407	1226		7 Feb.	
1865	4966	1922	1273	18.0	Mo. 27 Mar.	16	30	2408	1227	Cycle 2 75 1	27 Jun.	
1866	4967	1923	1274			5	31		1227	5 3	27 Jun.	
		1924		A.A.	Fr. 16 Mar.			2409	1228	- W	14 Feb.	
1867	4968		1275	Mi L	Th. 4 Apr.	23	80	2410	1229	H :	4 Feb.	
B.1868	4969	1925	1276	4.77	Mo. 23 Mar.	12	30	2411	1230	IAX	24 Jan.	
1869	4970	1926	1277	A.V.	Sa. 13 Mar.	2	30	2412	1231	1 3 W	11 Feb.	100
1870	4971	1927	1278		Fr. 1 Apr.	21	31	2413	1232	X 7	1 Feb.	
1871	4972	1928	1279	A.B.	Tu. 21 Mar.	9	30	2414	1233	8	19 Feb.	
B.1872	4973	1929	1280		Mo. 8 Apr.	28	30	2415	1234	9	9 Feb.	100
1873	4974	1930	1281	1000	Fr. 28 Mar.	17	31	2416	1235	10	28 Jan.	
1874	4975	1931	1282	A.S.	We, 18 Mar,	7	31	2417	1236	11	16 Feb.	
1875	4976	1932	1283		Tu. 6 Apr.	25	30	2418	1237	12	6 Feb.	
8.1876	4977	1933	1284	35000 9	Sa. 25 Mar.	14	30	2419	1238	13	26 Jan.	
1877	4978	1934	1285	A.J.	We. 14 Mar.	3	31	2420	1239	14	12 Feb.	
1878	4979	1935	1286	100	Tu. 2 Apr.	22	31	2421	1240	15	2 Feb.	
1879	4980	1936	1287	A.C.	Su. 23 Mar.	11	30	2422	1241	16	23 Jan.	
3.1880	4981	1937	1288		So., 10 Apr.,	30	30	2423	1242	17	11 Feb.	
1881	4982	1938	1289	1 1	We. 30 Mar.	19	31	2424	1243	18	30 Jan.	
1882	4983	1939	1290	A.S.	Su. 19 Mar.	7	30	2425	1244	19	17 Feb.	-
1883	4984	1940	1291	, J. 10.	Sa. 7 Apr.	26	30	2426	1245	20	7 Feb.	
3.1884	4985	1941	1292		Th. 27 Mar.	16	30	2427	1246	21	28 Jan.	
1885	4986	1942	1293	A.A.	Mo. 16 Mar.	5	31	2428	1247	22	14 Feb.	
1886		1943	1294		Su. 4 Apr.	23	30	2429	1248	23	4 Feb.	
1887	4 (0.00)	1944			Th. 24 Mar.	12	30	2430	1249	24	24 Jan.	
3,1888	4989	1945	1296	AV.	Tu. 13 Mar.	2		2431	1250	25	13 Feb.	
1889	4990	1946	1297	A	Su. 31 Mar.	20		2432	1251	26	31 Jan.	
1890		1947	1298	A D							The second second second	_
1891	2000000			A.B.	Fr. 21 Mar.	9		2433	1252	27	19 Feb.	
	4992	1948	1299		Th. 9 Apr.	28		2434	1253	28	9 Feb.	
1892		1949	1300	4.0	Mo. 28 Mar.	17	30	2435	1254	29	29 Jan.	•
1893	4994	1950	1301	A.S.	Sa. 17 Mar.	6	31	2436	1255	30	15 Feb.	
1894	4995	1951	1302		Th. 5 Apr.	24	30	2437	1256	31	5 Feb.	
1895	4996	1952	1303	1.5	Tu. 26 Mar.	14	30	2438	1257	32	26 Jan.	
1.1896	4997	1953	1304	A.J.	Sa. 14 Mar.	3	30	2439	1258	33	13 Feb.	
1897	4998	1954	1305		Fr. 2 Apr.	22	31	2440	1259	34	2 Feb.	
1898	4999	1955	1306	A.C.	Tu. 22 Mar.	10	30	2441	1260	35	22 Jan.	
1899	5000	1956	1307		Mo, 10 Apr.	29		2442	1261	36	10 Feb.	
1900	5001	1957	1308		Sa 31 Mar.	19			1262	37	1 Feb.	

The Burmese and the Ceylonese luni-snlar years commence on the same day as the Hindú, being derived from the same original authorities.

A special work on Muhammadan dates has lately been produced by Herr Joh. Von Gumpach (Madden, 1856), which I have duly examined for the purpose of testing Prinsep's previously-published results. Prinsep's Tables, it will be seen, are calculated from the initial date of the 16th of July, 622, A.D., while Gumpach commences from the 15th of that month.<sup>1</sup>

Prinsep continues to follow the Julian style up to A.D. 1750, while Gumpach introduces the Gregorian kalendar from A.D. 1582.

The tables are, therefore, uniform in their several correspondents from A.H. 1 to A.H. 990 = Julian, 1582 (26th or 25th of January, as the optional initial day may determine). Thereafter there is a uniform discrepancy of nine days between the two serial calculations,

The following is M. Gumpach's statement determining the selection of the initial date for his tables] :- The common era of the Mahometans, as has already been stated, is that of the flight of Mahomet (تاريخ المجرة the era of the Flight = Hegira). Its origin is by the Mahometans themselves referred to two distinct days; not that there is in reality a difference of opinion among them as to the true date, but that there is in reality a difference or opinion among them as to use true diag, but that its epoch is fixed upon two principles, according to the astronomical or the civil view of the case. The majority of astronomers make it a Mahometan Thursday, =15 Thamuz 933 a.s., or the moment of sunset on our Wednesday, the 14th July (old style) 622 a.b., so that the 1st of Muharram of the first year of the Hegira would mainly coincide with our Thursday, the 15th July, 622 a.b., according to the Julian kalendar. The majority of historical writers, on the contrary, place it a day later. All are in the habit of including in their expression of dates the correspond-ing day of the week, and thus not only obviate the uncertainty, which otherwise would attach to such dates, but, at the same time, afford a ready means of ascertainwould attach to such cases, out, at the same time, afford a ready means of accurationing the principle adopted, with regard to the epoch of the era, by each individual writer. Whenever the Turks express a date according to their solar kalendar, they commonly name the lunar year of the Hegira, including the 1st of March or the epoch of the solar year, to which that date belongs. . . . As will be seen on reference to the tables, the 1st of Maharram of the first year of the Hegira has been made to coincide, not with Friday the 16th, but with Thursday the 15th July, 622 A.D.; or, extraordically greating the month of the Hegira has been referred to the moment of astronomically speaking, the epoch of the Hegira has been referred to the moment of sunset, not on Thursday the 15th, but on Wednesday the 14th July, 622 A.D. For a twofold reason. In the first place, it is in itself a matter of indifference which of the two dates be chosen for the basis of our tables, inasmuch as both are in use among Mahometan writers; the week-day, as has already been observed, frequently being the only criterion for the true reduction of a given date. In the second place, whilst the Thursday is adopted by the far greater majority of Mahometan astronomers, and thus has usually to be taken in the reduction of astronomical dates, its nomers, and thus has usually to be taken in the reduction of astronomical dates, its tabular use, at the same time, is more convenient to the layman, because it simplifies the conversion of civil and religious dates, which are mostly based on the Friday as the epoch of the Mahometan era. Two Christian dates are assigned to the 1st Muharram of the year 990 of the Hogira, namely: 'J. 1582, 25th January,' and 'G. 1582, 4th February.' The former is to be taken when, in the year 1582 a.d., the given Mahometan date falls previous to the 5th October; the latter, when it falls subsequent to the 14th October. The reason is, that our tables are computed according to the Julian kalendar or old style, up to the 4th October, 1582 a.d., inclusive, and according to the Gregorian kalendar or new style, since its introduction in that year, when ten days were passed over, and, the 4th October (corresponding to the 16th Ramasan 990 a.m.), being a Thursday, the next day, a Friday (corresponding to the 17th Ramasan), was accounted, not the 5th, but the 15th October, 1582, a.d., the usual succession of the week-days being preserved.' consisting of the ten days passed over between the Julian and Gregorian styles, minus the one day initial difference, until A.H. 1112 — A.B. 1700, when the apparent difference increases to ten days, the days of the week, however, continuing to correspond in their previous relative degree; and this divergence necessarily remains until A.H. 1166 — A.D. 1752, when the discrepancies are reconciled, and the Hijra year is made by Prinsep, under the new series, to commence on the 8th of November, being the fourth day of the week; and by Gumpach, on the 7th of November, corresponding with the third day of the week.

<sup>1</sup> 'The difference between the Old and the New Style up to the year 1699 was only ten days, after 1700 it was eleven days.' 'Chronology of History,' Sir Harris Nicholas, p. 35.



# GENEALOGICAL TABLES.

The purpose of the present division of our Appendix is by no means to attempt any improvement, nor even a critical adjustment, of the catalogues of princes preserved in the legendary records of the Bráhmans, but merely to afford a succinct synopsis of the principal ancient and modern dynasties of India, and of the neighbouring countries, for reference as to names, and, where accessible, as to dates.

For the early or mythological history of the Hindús, little can be done beyond enumerating the mere names, and marking the few variations in the lists of Sir Wm. Jones, Wilford, Bentley, Hamilton, Wilson, and, latterly, Col. Tod, who have endeavoured, successively, to trace the parallelism of the solar and lunar races, and assign to them more probable dates than those extravagantly put forth in the 'Puranas.' As the regular succession from father to son is given in them, it was not a difficult task to apply the ordinary term of human generation, derived from the authentic histories of other countries, to the adjustment of the Hindú Chronology. Thus Ráma in the solar line, who is placed by the Brahmans between the silver and brazen ages (867102 s.c.), was brought down by Sir Wm. Jones to s.c. 2029, and reconciled with the Rama of Scripture; Pradyota, of the lunar race, in whose reign the last Buddha appeared, was brought down to B.c. 1029, the assumed epoch of Sákya in Tibet and China; and Nanda to 699, etc. In the case of the Magadha Rajas this adjustment was the more easy, because the length of each dynasty is given in reasonable terms from Jarásandha, the contemporary of Yudhisthira, downwards; and the error might be only in the wrong assumption of the initial date, the epoch of the Kalí Yuga, which the pandits allotted to the year 3101 s.c. After the discovery of the identity of Chandra Gupta with Sandracottus, pointed out by Sir Wm. Jones ('As. Res.', vol. iv. p. 26), and followed up by Wilford (vol. xv. p. 262), a further

reduction of 250 years in the position assigned to him in Sir William's first list became necessary; and the diminished rate of generations, applied backwards, brought Yudhisthira, and his contemporaries Arjun, Krishna, and Jarásandha, within the twelfth or thirteenth century before Christ. A most satisfactory confirmation of the modified epochs of Nands, Chandra Gupta, and Aşoka has been since derived from the chronological tables of the Buddhists in Ava, published in Crawfurd's Embassy, and again in those of the Ceylon princes, made known by the Honorable G. Turnour; their near concurrence with Greek history, in the only available point of comparison, reflects back equal confidence upon the epoch assigned to the founder of their religion (B.C. 544), in spite of the Chinese and Tibetan authorities, most (though not all) of which place Buddha 500 years earlier. It was this that misled Sir Wm. Jones in the epoch of Pradyota.

There are some discrepancies in the Burmese tables difficult to be explained, such as the placing of Ajátasatru 80 years prior to Sisunága, and the occurrence of Chandra Gupta still 50 years too soon: but we must refer those who would investigate this, and all other branches of the intricate subject of Hindú and Bauddha chronology, to the learned authors we have above mentioned, satisfying ourselves here with exhibiting a comparative table of the gradual changes effected by the progress of research in a few of the principal epochs.

Names.	Pauricule date.	Jones.	Wildord.	Bentley.	Wilson, !	Tod.	Burmese list.
	B. C.	B, C.	B. C.	B. C.	B. C.	B. C.	B. C.
Ikshwaku and Buddha	2183102	5000	2700	1528	-	2200	-
Ráma Yudhisthira	867102 } 3102 }	2029	1360	950	1430}	1100	_
Sumitra and Pradyota	2100	1029	700	119	915	-	600
Şişunaga	1962	870	600	-	777	600	472
Nanda	1600	699		-	416	-	404
Chandragupta	1502	600	350	-	315	320	392
Aşoka	1470	640	-	-	250	_	330
Balin	908	149	-	-	21	10	_
Chandrabija the last of Ma- gadha Rajas		300 A.D	. –	-	428 A.	D. 546	A.D.

The aid of astronomy has been successfully called in to fix such epochs as afforded the requisite data; thus the situation of the equinoctial colure in the time of the astronomer Parásara, who flourished under Yudhisthira, is fixed by Davis in 1391 n.c.; by Sir Wm. Jones, Colebrooke, and Bentley, in 1180; which latter closely accords with the epoch of the Cycle of Parasuráma, used in the Dakhan, and ap-

parently unknown to these authors, s.c. 1176. Bentley, on another occasion, alters this date to 575 s.c.! he also places Ráma in 950 s.c.; but there is great uncertainty and incongruity in many of his determinations of the dates of native princes and of books, from the prejudices he exhibits, although he is entitled to every confidence in his ingenious mode of calculating the period at which the various improvements in astronomy were introduced, and the 'Siddhántas' written or revised, by the time when the positions of the planets, as assigned by their tables, accorded best with the more accurate results of European astronomy. From the minimum errors, and the precession of the equinoxes (first applied to such a purpose by Sir Isaac Newton), we have the following epochs substantially ascertained:—

Invention of the Nukshatras or Hindú Lunar mansions The Mahúbhárat war, according to Wilford The Solar Zodiac formed by Parassra (under Yudhisthira) Era of Parasurama commences (see page 158) 7th August A Lunar Cycle invented, and precession discovered (Ráma?) Four Yugas, founded on Jupiter's motions	1425 B. 1367 1180 1176 945 B. 215 ? B.
Seven Manwantaras, founded on Saturn's revolutions  The 'Rāmāyana,' written by Valmiki  Varāha Mihiru, flourished, according to Telugu astronomers (also according to Sir W. Jones, Colebrooke, etc., from procession of the	31 ? B. 291 ? B.
equinoxes)  Tables of the 'Brahm's Siddhanta,' fixation of the sidereal Zodiac, and new system of Chronology, with extravagunt antiquity, compiled)  The 'Mahabharat,' written from Krishna's januampatra  The Javanese translation of ditto, according to Raffles, in  Vishnu Purkoa, whence genealogies of Andhra kings, 4955 k.v., or	499 638 B. 600 ? B. 1079 954 W.
Origin of the Kala Chakra, or Jovian Cycle (see prec. sect. p. 159) Tables of the 'Surya Siddhanta,' by Varaha Mihira	965

Mr. Bentley would rob the seven last of a few centuries upon very insufficient grounds; he also ventures to place the authorship of the 'Rámáyana' in A.D. 291, and that of the 'Mahábhárata' in A.D. 600, on far too slender astronomical data: but his mania for modernizing

<sup>&</sup>lt;sup>1</sup> [This should be 1150. Bhaskar's own date being 1072 Saka=A.D. 1150. Cole-brooke's 'Arithmetic and Algebra of the Hindús.' Introduction ii. H. H. W.]

renders his testimony of the advanced knowledge of the Hindús in astronomy, at so remote a period as the fifteenth century before Christ, the more valuable; and we can have little hesitation in giving credit to the lines of princes assigned to this space, and even to further antiquity, although their history has been mixed up with incredible mythos, and a falsified chronology. The more moderate and rational dates preserved by the Bauddha priests would lead to a supposition that the Brahmans had purposely antiquated theirs, to confound their rivals in the contest for ascendancy over the minds of princes and people. That they should have suspended their histories with Sumitra of the solar, and Chandrabija of the lunar line, in the fifth century, might be naturally accounted for by the predominance of the Buddhists at that period, or more probably by the destruction of the Hindú monarchies by the incursions of the Huns and Tartars. The 'Puránas,' or at least the prophetical supplements describing their genealogies, must have been compiled long afterwards, and the relative dates then falsified. But the principal blame in the business seems to fall upon the astronomers, who are accused of throwing back the commencement of their era: for, taking the data of the Pauranic tables, and allowing, with them, 1015 years from Yudhisthira to Nanda; and from the latter prince to Puloman 836 years (which name is identified with Poulomien of the Chinese by Wilford, and placed in the year A.D. 648), the highest estimate of the 'Bhagavat' gives 1857 B.c. for the epoch of the 'Kalí Yuga,' instead of the 3101 assigned in the astronomical works; while in the 'Brahmanda Purana' it is brought down to B.C. 1775; and in the 'Vayu Purana' to B.c. 1729. The Jains, it is said, adopt the still more modern epoch of 1078 B.C.; and if Anjana of Crawfurd's Burmese chronology, founder of the sacred epoch, be Arjuna, this contemporary of Yudhisthira is placed by the Bauddhas so late as 691 B.C. !

The Jains are generally also the most trustworthy authorities for the Middle Ages. To them it is asserted that Abú'l Fazl is indebted for the series of Bengal, Malwa, and other princes, published in the 'Ayı́n Akbarı´ with every appearance of accurate detail. The 'Rája Taringini' of Kashmı́r also, the only Indian history of any antiquity, begins with Buddhist theogeny. The Rájavali collection of genealogies is quite modern, having been compiled by Siwai Jaya Sinh, of Ambı́r, in 1650. Neither that nor the native bards and chroniclers, whence the valuable data for the more modern history of Hindustan were furnished to Col. Tod for his 'Annals of Rájasthán,' are to be trusted when they trace the ancestry of their princes back, and strive to connect them with the later heroes of the 'Puránas'; nor even to the earlier centuries of the Christian era, in which we find hardly any

of their names confirmed either by grants, coins, or by the historians of neighbouring countries.

More authentic in every respect are the copper-plate grants, dug up in many parts of India, and the Sanscrit inscriptions on columns and temples, of which many have been deciphered and published, although the subject is by no means yet exhausted.1 Owing to a fortunate pride of ancestry, most of these records of kingly grants recite a long train of antecedent Rájas, which serve to confirm or to supply vacuities in the more scanty written records. Of the value of these to history we cannot adduce a better instance than the confirmation of the Bhupála dynasty of the Rájas of Gaur, as given by Abú'l-Fazl in the occurrence of the names of Devapála, Dhermapála, Rájápála, etc., on the several monuments at Monghir, Buddal, Dinájpur, Amgáchi, and Sárnáth near Benares, where also the date and the Bauddha religion of the prince are manifested. It was supposed by Sir Charles Wilkins that the two first inscriptions referred to the first century of the Samvat era; but, as shewn by Mr. Colebrooke, as well as by actual date at Sárnáth, they rise no earlier than the tenth. Indeed, the occurrence of inscriptions bearing unequivocal dates, saterior to that period, is very rare. Col. Tod adduces one of the fifth century (Samvat 597) discovered near Kota. Mr. Wathen has also recently produced two of the fourth and sixth centuries, dug up in Gujarát, which confirm, or rather correct, the early records of the Saurashtra dynasty. The oldest, however, exist in Ceylon, where they have been brought to light by Captain Forbes and the Honorable Mr. Turnour: some of these, of which translations are published by the latter author in the 'Ceylon Almanac' for 1834, are ascribed, on evidence of facts mentioned in them, to the year A.D. 262; but they bear no actual date. The period most prolific of inscriptions is from the ninth to the thirteenth century, when an anxiety seems to have prevailed among the priests to possess graven records of grants from the reigning or from former sovereigns, in order probably to secure their temples and estates from spoliation or resumption in those turbulent times. One of Col. Tod's inscriptions, translated by Mr. Colebrooke, in the 'Roy. As. Soc. Trans.', vol i., expressly declares a rival grant to be futile, and derived from an unauthorized source.

The value of inscriptions, as elucidations of history, cannot better be exemplified than by the circumstance of the Burmese inscription in the Pálí character found at Gaya on the visit of the envoys from Ava in 1827, of which a translation was printed in the 'Jour. As. Soc. Beng.', vol. iii. p. 214. It records the frequent destructions and

<sup>1 [</sup>These remarks were published in 1835 A, D.]

attempts to repair the Buddhist temple there, and the successful completion of it in the Sakaráj year 667, A.D. 1306. Now Col. Tod's Rájput annals of Méwár make particular mention of expeditions to recover Gaya from the infidels in 1200-50, which might not but for this record have been capable of explanation.

Where dates are not given in inscriptions, the style of the Nágarí character will frequently serve to determine their antiquity. The cave temples of the west of India exhibit the most ancient form; the Gujarát type, above alluded to, of the fourth century, has a part connection with them, and part with an inscription at Gaya, and another on the Allahábád Lát; these again are linked by intervening gradations to the Tibetan alphabet, of which we know from Tibetan authors the existing Nagari of Magadha was taken as the basis in the seventh century. We shall soon be able to furnish a tolerably accurate palseographical series of the Devanágarí, but can here only allude to the subject. In the tenth and eleventh centuries it undergoes the modification observable on the Gaur, Sárnáth, and Shekáwati inscriptions, resembling very nearly the Bengali type, of which it is doubtless the parent. The modern Nagari is found on monuments of the thirteenth century, when the irruption of the Moghals prevented any further change. There is also a still earlier character on the Dihlí, Allahábád, and Tirhut Lats, which remains yet undeciphered; strong reasons have been advanced for its alliance to the Sanscrit group, if it contain not indeed the original symbols of that language. (See 'Jour. As. Soc.', vols. iii. iv.)

In all other countries, coins and medals have been esteemed the most legitimate archives and proofs of their ancient history. In India, little recourse to such evidence has hitherto been available. The few Hindú coins discovered have been neglected or deemed illegible. The subject is, however, now attracting more attention from the recent discovery of Bactrian and Indo-Scythic coins in great abundance in the Punjáb, bearing names hitherto quite unknown, in Greek, and on the reverse side in a form of Pehlvi character. The series is continued down to, and passes insensibly into, the purely Hindú coins of Kanauj, and some are in our possession, with Greek and Sanscrit on the same field. This very circumstance tends to bear out Col. Tod's supposition of the Kanauj princes having an Indo-Scythic origin. Yavan-asva, their progenitor, may indeed be 'the Greek Azo,' of whose coins we have so plentiful a supply." The Sanscrit characters on the Kanauj coins are of the earlier type, be-

<sup>&</sup>lt;sup>1</sup> Col. Burney reads the date, which is rather indistinct, 467, or A.D. 1106; but the above evidence tends to confirm the original reading. <sup>2</sup> See vol. i. p. 190.

longing to the fourth or fifth century: they will soon, it is hoped, be read, and put us in possession of several new names.

Other coins, in a still more ancient character, and nearly resembling the undeciphered letters of the Lats or the cave-sculptures, are dug up in the Dihlí district: they are found in company with Buddhist relics, and will, hereafter, doubtless, lead to historical information.

A third series of coins, with devices of a Bráhmaní bull, and a horseman, bears the Gaur Nágarí of the tenth century; on this several names have been made out, Bhímadeva, etc.; and on some the Persian titles of the first Muselmán conquerors are impressed.

A fourth series, with a sitting female figure, is in the modern Nágarí, and is probably the latest of the Kanauj coins. The early Muhammadan coins of Sabaktagín, Mahmúd, etc., frequently have a partial admixture of Nágarí, which will aid in locating the rest; for while this provoking dearth exists with regard to Hindú coins, we find coins with legible names and Hijra dates for the whole line of their Muhammadan conquerors, whose history is amply preserved without their aid.

One confirmation of a historical fact from numismatic aid has been remarked in the discovery of the name of Vása Deva or Bas Deo on a Sassanian coin. Ferishta states, that Bas Deo, of Kanauj, gave his daughter in marriage to Bahrám of Persia, A.D. 330:—the coin marks exactly such an alliance; but the Hindú chronicles admit no such name until, much later, one occurs in the Málwa catalogue of Abú'l-Fazl.

In the dynastics of Nepál and Assam, (at least from the middle of the seventeenth century), we have been wholly guided by coins in our possession; and it might be possible, by persevering search, to obtain from the same source the names of many Rájas antecedent to this period, which are now doubtful or wholly unknown.

From the time of the subversion of the Moghal empire in the middle of the last century, the historical train of their coins ceases to be available; all the native states having, in imitation of the English, struck their money in the name of a nominal sovereign of Dihlí, with no regard to dates, or even to the existence of the monarch; and up to the present time, we have had the names of Muhammad Sháh, Alamgír II., and Sháh 'Alam, issuing simultaneously from the native and the Company's Mint, while a second Akbar sways the pageant sceptre of the seven climes.

It must be confessed that a large field still remains open, for the re-investigation of the middle ages of Hindú history, in judicious

<sup>1</sup> See 'Jour. As, Soc. Beng.', vol. iii. p. 495.

hands; for independently of the new materials now before us in the numerous coins lately discovered, and in many new inscriptions, we have the aid of the foreign histories of Ceylon, Ava, Tibet, and China; we have access to the native volumes before only consulted through interested pandits; and we have Col. Tod's ample traditions and real archives of the principal portion of the Indian continent, the seat of all its important history. To say nothing of the minute and circumstantial numismatic histories of Greece and Rome, it is principally to coins that we owe the history of the Arsacidæ of Persia, through Vaillant's investigation. The Sassanian dynasty has also been illustrated from similar materials by Froehn and De Sacy. Marsden has extended the same principle to the Muhammadan princes of Persia and India, and to some few Hindú states, in his 'Numismata Orientalia;' and its application may be still further urged in the latter line with the greater success, in proportion to the greater dearth of other materials for history, as is exemplified in the coins of the Bactrian provinces. The first thing to be done will be to expunge and lose sight of the learned but entangled accounts of Colonel Wilford and others, which, while they have confused, have frightened critics at the perplexity of the subject. The three Vikramádityas, and three Rájá Bhojas, invented to reconcile discrepancies in dates, will perhaps be found as little needed as the multiplication of Buddhas, the two principal of which are now seen by the identity of their biography to be the same personage.

Of the confirmation of the testimony of inscriptions by that of coins, we have remarkable instances in the Chandragupta and Samudragupta of Kanauj, names first discovered on the Allahábád pillar, and now fully made out, along with several others of the same dynasty, on the gold coins found in the ruins of that ancient town. In no other record have we any mention of these sovereigns, who must have been several centuries anterior to Chandra Deva, the founder of the last reigning dynasty, which was overthrown by the Muhammadans.

The native dates of events, as has been already stated, are most vague and uncertain: still there are instances in which they have undergone further perplexity from their European commentators.

The looseness with which the chronology of the Pauránic genealogies has been investigated, is pointed out in Mr. Wilson's remarks on the 'Vishnu Purána,' the authority whence Sir Wm. Jones' list was furnished by his pandit ('Jour. As. Soc. Beng.', vol. i. p. 437). By some mistake he gave 345 years to the Kánwa dynasty of four Rájas, and in this he was blindly followed by Wilford and Bentley, both professing to consult the original. Now all the manuscripts examined by Mr.

<sup>1 [</sup>See vol. i. p. 235.]

Wilson give only 45 years. Indeed, when the epoch of Chandragupta is adjusted, the periods given in this 'Purana' from Parikshit (s.c. 1400) down to the termination of the list in A.D. 436, are quite rational.

A more glaring instance of error, sanctioned, nay almost perpetuated, by the extent to which it has been spread, has originated in blindly following the authority of the pioneers of our Sanskrit researches; and it is strange that it has never been detected, that we are aware of, up to the present day. We allude to the mode of converting the Samvat of Vikramáditya into the Christian era, by subtracting 56 instead of 57, thereby inducing a constant error of one year in all dates of chronicles, deeds, and inscriptions so read. We have taken some trouble to trace the origin of this mistake from curiosity, and it shows how subject we are to rest upon the assertions of others without duly scrutinizing the data on which they may be grounded.

Vikramáditya died in the Kali Yuga year 3044, according to Wilford, whose essays in the ninth and tenth volumes of the 'Asiatic Researches' contain the fullest information on the history of the three supposed princes of this name, and of their common rival Sáliváhana. The first Samvat, therefore, concurs with the year 3045 k.r.; and to convert the latter into the former, 3044 must be uniformly deducted. This calculation agrees with Warren's 'Kála Sankalita,' (see p. 157, and Table), also with Abú'l-Fazl's statement, that 'in the fortieth year of Akbar's reign (A. H. 1003, commencing 5th Dec. 1594, and ending 25th Nov. 1595, A.D.) there had clapsed 4696 years of the era of Yudhisthira (Kali Yuga),' making its commencement, 3101, s.c.

Also 1652 years of the era of Vikramáditya (1652-1595 = 57, B.c.) and 1517 years of the era of Sáliváhana (1595-1517 = 78, A.D.).

The Bengálí Almanaes, published at Nadiyá, give precisely the same agreement. The Almanae of the Sadar Dewání, and the statements at the head of all the regulations of Government, coincide therewith: thus, the Samvat year 1877 began on the 15th March, 1820 = 57 years difference. If further evidence is required of the knowledge of the true era in possession of English authors, we have in Buchanan's 'Mysore,' vol. iii., p. 112:—' 3786 years of the Kali Yuga had now elapsed, of which the particulars are, 3044 years of Yudhisthira,

135 years of Vikrama, 607 years of Sáliváhana,

3786 K.T., or A.D. 685.

One Bengali Almanae, however, printed in Calcutta, which was brought to us for comparison, had both the Samvat and Saka era one year in defect; the Bengali San being the only era now used in Bengal, little care is taken in regard to the rest. The Kali Yuga, the foundation of all, was, however, correct.

Here the interval between 3044, whence the Samvat commenced, to the Sáka, is 135, or 57+58 years; (or 135-685-607=57).

Again, Dr. Hunter, in his account of the astronomical labours of Rájá Jai Sinh, dates them in '1750 Samvat, or 1693 A.D.,' making the interval 57 years.

Sir William Jones, residing in Calcutta, where the Samvat is not used, in his speculations on Hindú chronology, only alluded to the Kali Yuga. Davis, in his account of the native method of eclipse calculations, used the Saka only; but he frequently alluded to the Kali Yuga, the first year of which he correctly placed in 3101 s.c.

Whence then can the now common, nay, almost universal, application of the subtrahend 56 have proceeded? Simply from Wilford's having placed the Kali Yuga epoch in 3100, instead of 3101 B.C., in his essay expressly written to settle the eras of Vikramáditya and Sáliváhana, to which too much confidence has been given by subsequent writers. Having everywhere assumed this erroneous datum, it followed that the Samvat epoch, which he rightly placed 3044 after Yudhisthira, would concur with 3100-3044=56 p.c. But whence did he get his erroneous epoch of the Kali Yuga? This also we may conjecture, having already seen him convicted, on another count, of blindly adopting Sir W. Jones' data. Sir William, in his 'Essay on Hindú Chronology' ('As. Res.' vol. ii., p. 126), says, '4888 years of the Kali Yuga are passed up to the present time;' and his table of comparative epochs is calculated from 1788, a.p., leaving an obvious difference of 4888-1788-3100, s.c., which Wilford seems to have adopted. Had he, however, looked to the heading of the article, he would have found the date 'January, 1788,' consequently the Kali Yuga year commencing in April, 1787, had not yet expired: the true difference therefore was 4888-1787=3101, or more exactly 31002 years; or, for the Samvat, 562, in the nearest round terms 57.2 (See p. 157.)

Wilford is not the only author who was thus led to adopt the wrong equation. Colebrooke and Wilson always use 56. Chronological Tables have the same intercal; and Colonel Tod employs it throughout his voluminous chronicles of the Rájputs, thereby throwing all his events forward one year, excepting such as fall in the

<sup>1</sup> In a previous part of the very same volume, p. 47, Wilford had used 57. In

some places he makes the cpoch of the Kali Yuga 3001 instead of 3101,

There is another advantage in adhering to the difference 57 in general terms rather than the now correcter number, 56‡, namely, that before the year 1752 it was customary, in England and most parts of Europe, to commence the year in the month of March, or on the Easter moon; so that for all dates anterior to that period the European year may be accounted to have agreed with the Hindû luni-solar reckening precisely.

months Pausha, Mágha, Phálgun, and half of Chaitra, subsequent to A.D. 1752. He himself notices here and there a discrepancy of one year with the Mussalmán historians, which is generally attributable to this cause alone.

Captain Fell always uses the correct formula, having had access to native almanacs or to pandits. Mr. Stirling, in his 'Account of Orissa,' has the right epoch of the Kali Yuga; but he applies a wrong equation (+ 77) to the Saka era of his Orissa rájas. It is possible that this may be the mode of reckoning in that province; for we find the Saka vary a year or two also in Burmah and Java, if these variations are not indeed attributable to our English references; for, as we have seen above, they are by no means infallible!

The term Samvat does not apply exclusively to the era of Vikramáditya. Colebrooke first corrected this erroneous supposition in regard to the Samvat of the Gaur inscriptions, which probably commenced with the Bhupála dynasty, about 1000 A.D. Colonel Tod has also established the fact of a Balabhi Samvat in Gujarát, dating in 318 A.D., and a Siva Singha Samvat, in the same country, coinciding with 1113 A.D. This circumstance must be particularly attended to in examining ancient documents.

Kirkpatrick mentions that Raghava Deva introduced the Samvat era-into Nepál; adding, that the Newár era is, however, generally used there, its origin being unknown. Now in the list of Nepál rájás, from Hara Sinha Deva, a.b. 1323, back to Raghava Deva, there are but three reigns of extravagant lengths, viz., of 88, 85, and 80 years: if these be cut down to the usual average, the date of Raghava will fall about 880, which is the epoch of the Newár era, so that in all probability the term Samvat in this case merely applied to the latter era, and not to that of Vikramáditya.

It is frequently the custom in eastern authors to estimate dates backwards from the epoch of the writer or compiler. Thus, in the Buddhist chronology of Tibet, translated in M. Csoma's 'Tibetan Grammar,' we find, 'from the incurnation of Shákya 2647 years,' meaning anterior to A.D. 1686. In these cases, and particularly where time is estimated in cycles, great caution is necessary in fixing the initial date, and it is not improbable that from this source has arisen much of the confusion of Hindú chronology; as, for instance, from throwing back the origin of the Kála-chakra system, or Jovian cycle of sixty years, which is traced (see page 161) to the year A.D. 965, as far as regards its introduction into India. Individual inaccuracies are hardly to be wondered at where events are chiefly chronicled from after-recollection. Thus the bard Chand is 100 years out in one place, according to Tod. Amír Khán's 'Biography' is one year out for a

long period, and endless instances of the same inaccuracy might be adduced. The Muhammadans are generally very particular in their dates, and so are the Hindús where they inscribe a deed on brass;—in this case they frequently allude to some eclipse or full moon, the act of donation being more pious for its occurrence on a religious festival.

It is hardly necessary to enumerate the authorities for the different catalogues to which we may now proceed, since they will be mentioned under each dynasty: but it may be as well to premise that A. A. against a name or date denotes Ayı́n-i-Akbarı́; F., Ferishta's history; J., Jones; Wd., Wilford; B., Bentley; T., Tod; H., Hamilton; and W., Wilson.

All dates have, for uniformity sake, been expressed in Christian years, which can readily be converted into the various native reckonings by the rules given in page 172.

As a convenient preface to the mythological catalogues of the Solar and Lunar dynasties, a tabular sketch of the Hindú Theogony, with a few additional memoranda regarding their sacred works, etc., have been inserted. For more ample details on this subject, Moore's 'Hindú Pantheon,' and Coleman's 'Mythology,' or the standard work of Ward on the Hindús, may be consulted; while, for the Purámic genealogies at length, the elaborate tables published by Dr. Hamilton, at Edinburgh, in 1819, although inconveniently expanded in dimensions, will be found the most complete and authentic reference. The tables of Sir William Jones, Wilford, and Bentley, in the 'Asiatic Researches,' have the addition of dates; but, as before remarked, these are hardly admissible in the earlier periods of fabulous history.

In regard to the tables of the Muhammadan sovereigns, it has been thought sufficient, as their history is so readily accessible, to insert merely their names and titles at length, to facilitate the identification of coins, etc., where frequently only a part of the title is visible. To connect the line of these intruders into Hindústán, it was also unavoidable to carry back the list to the Persian, the Arsacidan, Syrian, and Bactrian monarchies; for, although properly speaking beyond the limits of India, their history is, from the time of Alexander, continually mixed up with that of the rich and fruitful country so constantly the prey to their invasions and plunder.

### TABLE XV .- Hindu Theogony.

#### 1. THE INFINITE ALMIGHTY CREATOR, OF THE VEDAS, BRAHM.

The Hinds Trinity, or Trimurti	Bramha.	Vishou.	Siva.
	Saraswati,	Lakshmi, Padmi, or	Parvati,
Their consorts	Máyá.	Bri.	Bhawaní, or Durga
Their attributes	Creator.	Preserver.	Destroyer.
Their attendant vahan, or vehicle Their symbols	Hansa, a goose. Time.	Water.	Nandi, bull. Pire.
Their stations	Merg.	The Sun.	Jupiter.
Their common titles A II M	Paraméswara.	Narayana.	Mahadeva.
Figure under which they are wor- shipped	Mentally.	Saligram and 9 Avataras	The Lingum, under his mil- lion epithets.
Analogues in Western Mythology	Saturn.	Jupiter.	Jupiter.

2. OTHER MEMBERS OF THE HINDÚ PANTIEON, AND THEIR SUPPOSED ANALOGUES IN WESTERN MYTHOLOGY, ACCORDING TO SIR WILLIAM JONES. 2 /11/2

Sareswati	Minerva, patroness of learning, etc. Janus, god of wisdom. Jupiter, god of firmament. Neptune, god of water. Cybele, goddess of earth. Vulcan, architect of gods, Mara, god of war. Cupid, god of love. Sol, the sun. Mithra, the same.	Vaitarini Durga Nareda Nareda Krishua Bhawani Kali or Durga Agni Swaha Aswini-ku mara Atavideva Kuvera	The river Styx. Inno. mercury, music. Apollo. Venus. Proserpine. Vulcan, fire. Vesta (his wife). Castor and Pollux, Aurora, Diana. Plutus, god of riches,
Hanumán, son ) of Pavana.	Pan, the monkey god.	Gang's	The river Ganges.
Rama Yama Heracula	Bacchus, the god of wine. Pluto or Minos. Hercules.	Sri	Æolus. Ceres. Anna Perenna.
Aswiculapa	Æsculapius? (genii).	Autor Autoria	Action & Constitution

3. THE TEN BRAHMÁDICAS, CHILDREN OF BRAHMÁ, OR PRAJÁPATIS, LORDS OF CREATED BEINGS.

1	Marichi	Morality.	1 6	Kritu	Piety.
	Atri		7		Ingenuity.
3	Angirasa	Charity.	8	Vosjshtha	Emulation.
4	Pulastya	Patience.	9	Bhrigu	Humility.
5	Pulnha	Pride.	10	Narada	Resson.

### 4. THE SEVEN MENUS OF THE PRESENT CREATION.

- Swayambhuva, Adam? 4006, p. c.
   Swarochesha.
- Uttama. Tamasa, Chaos, Thaumaz of Egypt.
- 5 Raivata.
- 6 Chnckshusha. 7 Vaivaswata or Satyavrata, Nosh? 2950, B. C.

### 5. THE SEVEN RISHIS, SPRUNG DIRECT FROM BRAHMÁ.

1	Kasyapa, Muni.	5 G	autama.
2	Atri, Muni.	6 Ja	madagni.
3	Vasishtha.	7 B	haradwija.
4	Visyamitra.	1	972

#### 6. THE TEN AVATÁBAS, OR INCARNATIONS OF VISHNU.

1	Matsya	The fish.	1 7	Rama Of the solar race.
	Kurma		8	Krishna Of the lunar race.
	Váráha		9	Buddha Of the Buddhists.
	Narasinha	The lion.	10	Dharma-bhushana or Kalki-avatar,
5	Vámana	The dwarf.		to appear at the close of the Kali
6	Parasurama.	Son of Jamadagni.		Yuga.

<ol> <li>THE ELEVEN RUDRAS, OR OF SIVA.</li> </ol>	rorms	RUDRAS ACCORDING TO THE HARIYANSA.
1 Ajsikapāda 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Mohama. Bama.  Bhawa. Aju. Rawati. Ugra. Bhima.	1 Mrigavyádha. 2 Sarwa. 3 Nirriti. 4 Ajeknpád. 6 Ahirvradhna. 6 Pinákin. 7 Aparájita. 8 Havana. 9 Iswara. 10 Kapáliu. 11 Sthánu. 12 Bhava. (J.P.)

### 8. THE MIGHT VASUS; A KIND OF DEMI-GOD.

1	Dhava.	5 Anila, or wind
2	Druva.	6 Anala, or fire.
3	Soma, the moon.	7 Prabhúsha.
	Vishnu.	8 Prabhava.

### 9. THE TEN VISHWAS, A CLASS OF DEITY WORSHIPPED IN FUNERAL OBSEQUES.

1	Vasu.	6	Kama,
2	Satva.	7	Dhriti.
3	Kratu.	8	Kuru.
4	Daksha.	9	Pururava.
5	K6la	10	Madraya.

# 10. THE EIGHT DIKPÁLAS, GUARDIANS, AND THE EIGHT DIKPATIS, LORDS, OF TH) CARDINAL POINTS.

1	Indra	East.	1	Surya	The Sun.
	Agni (or Vahni)	South-east.		Sukra	Venus.
	Yama	South.	3	Mangala	Mars.
	Nairrita	South-west.	4	Ráhu	Asc. node.
	Varuna	West.	5	Sani	Saturn.
	Marut (Vayu, Pavan)	North-west.	6	Chandra	The Moon.
	Kuvera	North.	7	Buddha	Mercury.
8	Isana (Prithivi)	North-east.	8		Jupiter.

11.	THE TWELVE	ADITYAS; MONTHLY LEMS OF THE SUN.	1	ÁDITTAN, AC	COBDIN	
1 2 3 4 5 6	Varuna. Surya. Vodanga. Bhanu. Indra. Ravi.	7 Gabhasti. 8 Yama. 9 Swarnareta. 10 Divakara. 11 Mitra. 12 Vishpu.	1 2 3 4 5	Dhatri. Aryaman. Mitra. Varuna. Ansa. Bhagu.	7 8 9 10 11 12	Indra. Visaswan. Puchan. Twashtri. Savitri. Vishpu.

# 12. THE TWENTT-SEVEN NARSHATRAS, DAUGHTERS OF DAKSHA, OR LUNAR MANEIONS.

1	Aswini.	1 10 7	Magha.	1 19	Mdla.
2	Bharani.		Purva Phalguni.	20	Purva Asarha.
3	Kritika.		Uttara Phalguni.	21	Uttara Asarba.
4	Rohini,		Hasta.	22	Sravana.
5	Mrigasira,	14 (	Chitra.	23	Dhaneshtha.
6	Ardra.	15 8	Swati.	24	Satabhisha,
7	Punarvasu.	16	Visakha.	25	Purva Bhadrapada.
8	Pushya.	17	Anuradha,	26	Uttara Bhadrapada.
9	Aslosha.	18 3	Tayoshtha.	27	Revati.

### 13. THE NAMES OF BUDDHA.

Buddha, Sakya-muni or Siaba, Gautama, Tathagata, Maha-srumana; Saudho-dani, from his father Sudho-dana; Arkabandhu, or kinsman of the Sun; Maya-devi-suta, or child of Maya.

But, of the Mussalmans.
Buddas and Sarmanes, of the Greeks.
Mercurius Mayer filius, of Horace.
Bud or Wud, of the Pagan Arabs.
Woden, of the Scandinavians.
Toth, of the Egyptians.
Fo. Foe, or Fo-hi, and Sa-ka, of the Chinese.

Pout, of Siam.
Sommonokodam, of ditto.
Godama, of Ava.
Kshaka, of Japan.
Chakabout, of Tonquin China.
Chom-dan-das,
Tange-gyas,

#### Bauddha System of Theogony.

Adi-Buddha, the Supreme Being, created by dhyan five divine Buddhas, who are quiescent, viz. :-

4	Vairochana Akshobhya. Ratna. Sambhava. Amitabha. Amogha Siddha.	Bach of whom produced from himself his son, or Bodhisatwa,	1 2 3 4 5	Samanta Bhadra. Vajra Pani. Ratna Pani. Padma Pani. Viswa Pani.
---	---	--	-----------------------	---

The Buddhist Triad, or mystic syllable A U M, is interpreted :-

A, the Vija mantra of the male Buddha, the generative power.

U, ditto of the female Dharma or Adi Prajni, the type of productive power.

M, ditto of Sanga, the union of the essences of both.

#### The seven human or earth-born Buddhas.

1 Vipasya. 2 Sikhi.	5 Kanaka Muni.
2 Sikhi.	6 Kasyapa, and
3 Viswa Bhu.	6 Kasyapa, and 7 Sakya Sinba.
4 Karkut Chand.	Arya Maitri, the future Buddha,

### 14. THE TWENTY-FOUR JIMAS OR TIRTHANKARAS, OF THE JAINS.

		Where born.	Where died.
1	Adinath or Rishabhanath	Ayodhyn.	Gujarat.
2	Ajitanāth		Mt. Sikhar (hod
3	Sambhunáth	Sawanta.	Parisnath.)
4	Abhinandananath	Ayodhya.	
- 5	Sumatinath		**
6	Padmaprabhunath	Kausambhi.	111
7	Suparswanath	Benares.	**
8	Chandraprabha	Chandripur.	21
9	Suvidhanath or Pushpadanta	Kakendrapuri.	**
10	Sitalanath	Bhadalpur.	39
11	Srí Ansanath	Sindh.	
12	Vasapūdya	Champapurf.	Champapuri.
13	Vimalankth	Kumpalapuri.	Mt. Sikhar.
14	Anantanáth	Ayodhya.	- 12
15	Dharmanáth	Ratanpuri-	12
16	Santanáth	Hastinapur.	
17	Kunthunáth		**
18	Aranath		11
19	Mallinath	Mithila.	
20	Munistyrata	Rájgriha.	**
21	Neminath	Mithila.	
22	Naminath	Dwarika.	Mt. Girinara.
23	Parswanath	Bonares.	Mt. Sikhar.
24	Vardhamana or Mohavira Swami	Chitrakot.	Pawapuri.

### THE SAPTA DWIPAS OR DIVISIONS OF THE ANCIENT WORLD, RULED BY THE SOME OF PRIYABRATA, KING OF ANTARVEDA.

Oldest Division.		Nower Div	taton
Jambudwipa Angadwipa Yamadwipa Yamaladwipa Sankhadwipa Kushadwipa Varshadwipa	India. Nepa! ? Assam, Ava ? Malays Africa. Assyria. Europe.	Jambudwipa Plakshadwipa Salmalidwipa Kushadwipa Karanchadwipa Sakadwipa Puskaradwipa	India. Asia Minor, W. Ceylon? W. Assyria, Persia, etc. Near the Baltie? W. Part of Kushadwipa, Britain? W. Part of Kushadwipa, Ireland? W.

### 16. THE FOUR VEDAS.

1	The Rig veds.	3 The Sama veda.
	The Yajur veda.	4 The Atharva veda

#### 17. THE POUR UPAVEDAS.

1	The Ayush	Medicine.	3	The Dhanush	Warfare.
	The Gandharva	Music.	4	The Sthapatya	Mechanics.

### 18. THE SIX ANDAS, OR BODIES OF LEARNING.

1	Siksha	Pronunciation.	4	Khandas.	
2	Kalpa	Religious acts.	5	Jyotish	Astronomy.
3	Vyakarana	Grammar.	6	Nirukti	Interpretation of Vedns.

#### 19. THE POUR UPÁNGAS.

1 2	Purána Nyáya	History, comprising the eighteen Puranas.
3	Mimansa	Logic, and the principles of knowledge. Religious principles and duties. Law, human and divine.

#### 20. THE RIGHTERN PURÁNAS.

1	Brahma-purana.	10	Nárada.
2	Padma, or lotus.	11	Skanda.
3	Brahmanda, egg of Brahma.	12	Markanda.
4	Agneya, or Agni, fire.	13	Bhavishya, prophetic.
5	Vaishnava, or Vishnu-purana.	14	Matsya, or the fish.
6	Garuda, Vishnu's bird.	15	Varaha, or boar.
7	Brahma-vaivartta or transformationa	16	Kúrma, tortoise,
	of Krishna (as the supreme).	17	Vamana, or dwarf.
8	Saiva, or of Siva. [Vayu replaces it.]	18	Sri Bhagavata, or life of Krishpa,
9	Linga-purana.		Mar 1991 1991

#### 21. THE SIX PRINCIPAL SECTS OF THE HINDÓS.

1	Salva	Worshippers of	Siva, in his thousand forms.
	Vaismava		Vishnu.
	Sauriya		Surya, or the Sun.
	Ganapatya		Ganesha.
	Sacta		Bhawani, or Parvati.
6	Bhagavati		Who recognize all five divinities e ually.

AND RESIDENCE AND A

### PAURÁNIC GENEALOGIES.

Table XVI.—Descendants of Swayambhwea, the first Manu, King of Brahmavarta, and progenitor of mankind (Adam? J.), according to the 'Bhagavat Purana,' H.

[Professor Wilson (Preface to 'Vishņu Puráṇa') reviews in detail the date and authenticity of the 'Bhágavata Puráṇa;' his conclusions on these subjects may be gathered from the following quotation:—

'The statement of the text is of itself sufficient to show that, according to the received opinion of all the authorities of the priority of the eighteen Puranas to the Bharata, it is impossible that the 'Sri Bhagavata,' which is subsequent to the Bharata, should be of the number. . . . . There does not seem to be any other ground than tradition for ascribing it to Vopadeva, the grammarian; but there is no reason to call the tradition in question. Vopadeva flourished at the court of Hemadri, Raja of Devagiri, Deogur, or Dowlutsbad, and must consequently have lived prior to the conquest of that principality by the Muhammadans in the 14th century. The date of the 12th century, commonly assigned to him, is probably correct, and is that of the 'Bhagavata Purana,' p. 31.']

### BRAHMA. SWAYAMBHUVA.

UTTÁNAPÁDA, King of Bharatkhanda. (From whom descended the Kings of Brakmavarta.)

Dhenva Vatsara. Pusparna. Vyushta. Sarvatajas. Chaxusha. Ulmuka. Angga.

Vena-adharmaraja.

Prithu.

Vijitaswa, or Antardhyana. Havirdhana.

Varhishata, or Prachinahvarhi.

Pracheta, and 9 brothers.

Daksha Prajapati,

Among whose numerous progeny were 10 daughters, married to Dharma.

13 daughters, married to Kasyapa Muni, the son of Marichi (see Solar race), progenitors of men, animals, vegetables, etc.

Dana, mother of evil genii, comets, etc. Ditt, mother of the Daityss, or Asuras.

Aditt, mother of the gods and Suras.

27 daughters, the Nakshatras, married to the Moon.

1 daughter, mother of the 11 Rudras, and others of less importance.

PRIYAVBAYA, King of Antarveda. AGNÍDHBA, King of Jambudwípa. (From whom descended the Kings of Bharatkhanda.)

Nabhi.

Rishabha-deva.2

Bharata.

Vridhaséna (Sumati, 'V. P.').

Devatajit (Indrayumna).

Devadyumna. Purmeshthi (Parameshtin).

Pritiba (Pratibára).

Pritiharta (Pratihartta).

Bhuma (Bhava).

Udgitha.

Prastára.

Bibhu (Prithu). Prathusena.

Nakta.

Chitraratha (Nara.3 Succession varies considerably in 'V. P.' p. 165.)

Sumrata. Marichi (see Solar race).

Binduma.

Madhu.

Viravrata.

Manthu.

Bhauvana. Twashtha.

Viraja, and 100 sons, whose names are unknown.

Table XVII.—The Surya-vansa, or Solar Dynasty, collated from the lists of Jones, Wilson, Tod, and Hamilton.

Marichi.

Kasyapa Muni, married Adits, Daksha's daughter (see Table XVI.).

Vivaswana, or Surya, the Sun.

Sradhadeva, or Vaivaswata (the Sun), King of Ayodhya. 1kshwaku, in the Treta Yuga,—B.c. 3500, J.—2200, T.

Priyavrata was also father of Idhmajabha, King of Plaksha Dwipa; Yagyabahu, of Salmala Dwipa; Hiranyarita, of Kusa Dwipa; Ghritaprishtha, of Kranncha Dwipa; Medhatithi, of Saka Dwipa; and Bitihotra, of Puskara Dwipa; of whom the descendants are not traced farther than the first generation.

2 Rishabha-deva was also father of the kings of various other nations, viz.:—
Kusa-warta, of Kusa-warta-des; Ila-warta, Brahma-warta, Malaya, Ketu, Bhadra-

séna, Indrasprik, Bidharbha, and Kikata, of desas, or countries, bearing the same names; besides the nine immortal Siddhas,—Kabiyaga, Hari, Antarixa, Prabuddha Pippalayana, Abirhotra, Dranila, Chumasa, and Karabhajana; also eighty-one Branmans, names unknown.

3 [I do not think it necessary to continue these corrections of mere nominal list of fabulous ages.]

From whom sprung the two Solar Dynasties.

```
OF AYODEYA (OUDE).
Vikukshi (did not reign, W.).
Kukutst'ha, or Puranjaya.
Anenas
Prit'hu } An-Prithe, T.
Viswagandhi, Visvagaswa, W.
Chandra Ardra, T. W.
Bhadrardra, W.
Yuvanaswa.
Srava, Svasava, H.
Vrihadas'wa.
Dhundhumara, Kuvalayaswa, W.
Drid'hás'wa.
Haryas'wa.
Nikumbha.
                 Varunaswa, T. H.
Cris'fiswa
                Sankataswa, W.
Senajit, Prasensjit, W.
Yuvanaswa, H. W. orr. J
               Suvindhu, T.
King of Saptadwipa.
Mándháta
Purukutsa.
Trasadasyu, cor. T.
Anaranya.
Prishadaswa, W.
Haryas'wa, H. W.
Praruna, Aruna, H., Vosumana, W.
Trivindhana, Tridhanwa, W.
Satyavrata, Trayaruna, W.
Suvritha, T., ear. J. H. W.
Tris'anku.
Harischandra, King of India.
Rohita, Kohitaswa, H.
Harita.
Champa, Chunchu, W.
Sudéva, car. T. W.
Vijáya (his brother; Kurm. Pur.)
Bharuea.
Vrika.
Bahuka, Bahu, W.
Sagara, had 10,000 sons.
Asamanjasa, only survivor.
Ansuman,
Dulipā, W. T. H., cer. J.
Bhagirat'ha, brought down Ganges river.
Nabhaga.
Ambarisha, T. W.
Sindhudwipa.
Ayutáyush.
Ritaperna.
Nala, T.
Sawakima, W. T. } car. J. H.
Kalmashapada, W. H., cor. J. T.
Asmaka.
Múlaca, Harikavacha, W.
Das'arst'ha.
Afdabida, Ilivita, W.
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OF MAITHILA (TIRRUT).
Nimi.
Janaka, built Janakpur.
Nandiverdhana.
Suketu.
                            3.8
Dewarata.
Vrihadratha.
Mahabirya.
Sudhrita
Dhristaketu.
Haryaswa.
Maru.
Pratipaka.
Kritiratha.
Devamirha.
Visruta.
Mahadhritt.
Dhritiratu.
Maharoma.
Swarnaroms.
Haraswaroma
              Pather of Sita, who
                 married Rama (see
Swadhaja,
                 the parallel line of
Ayodhya.)
Kesidhaja.
Dharmadhwaja.
Kritadhwaja.
Kesidhwaja.
Bhanuman.
Satadyumna.
Suchi.
Sunadhwaja.
Urdhaketu.
Ayu.
Purajit.
Arishtanemi.
Srutayu.
Supanswaka.
Chitraratha.
Kshemadhi.
Samaratha.
Satyaratha.
Upa-guru.
Upajupta.
```

Baswananta. Yugudhana. Subhasana.

Sruta. Jaya.

Vijaya. Ritu. Sunaka.

Bitahala.

Bahulaswa.

Mahabasi.

Dhriti.

Kriti.

Prasénajit,

Takshaka,

Vrihadbala.1

Vrihadsan'a, n. c. 1300 J.

car. W.

ATODHTA ILÁZÁS, continued.

Das'arat'ha, 2nd W. Vis'wasahn. K'hatwanga, Kharbhanga, T. His brothers, Ráma, A. c. 2029, J., Bharnta, Dirghabahu. Raghu. 950, B., 1100, T. Lokshmana, Satroghana. Aja. SOLAR LINE OF VESALA DWÁPÁR YUGA OR BRAZEN AGE. (ALSO DESCENDED PROM SEADHA-DEVA.) Kusha, Lava, T. Dishta, King of Vesala. Atithi. Nabhaga. Nishadha. Bhalandana. Nubhas, or Nala, T. Vatsaprité. Pundarika. Prangsu. Kshemadhanwas. Pramati. Dévânica, Dwarika, W. Ab'inagu, Ahinaja, W., Hina, H. Kuru, W., ser. J. H. Khanitra. Chaxusha. Bibingsati. Pariputra. Dala, W., Bala, H. Rambhu. Khaninetra, } cor. Vansclata. Rana-chhala. Dharmika, Uktha, W., car. J. H. Karandhama. Vajranabha. Adixita. Arca, car. W. T. H. Maruta. Sugana, Sankhanábhi, W. Vidhriti, Vijuthitábhi, W. Viswasaha, 2nd W., Visitaswa, Hiranyanábha. Dama, car. do. Rajyavarodhana, Sudhriti. Nara, cer, do. Kebala. Pushpa, Pushya, H. Dhundhumana, or Bandhuman. Dhruvasandhi, car. T. Suders'ana, cor. W. Begawan, Budha, Trinavindhu, Agniverna, Apaverma, W. Sighra. Besahiraja, or Visala, who founded Vaisali (Allahábád). Manu, Maru, W. T. H. Prasusruta. Sandhi, Susandhi, W. Hemachandra. Amers'ana, Amersha, W. Mahaswat, Avaswana, T. Dhumraxa. Sangyam. Vis wabhahu, | Viswasava, T. Sahadeva, eer. V. L.

[N.B.—The names which are enclosed in parentheses in the subjoined tables are not to be found in the 'Vishnu Purana.' orthography of the leading names has generally been adopted and corrected up from that authority.

Krisaswa.

Somadatta. Sumati (ends V. L.)

Janamejaya.

As illustrative of the probable date and authenticity of this Purana, I cite Prof. Wilson's careful résumé of the subject : ]

'The fourth book contains all that the Hindus have of their ancient history. It is a tolerably comprehensive list of dynastics and individuals; it is a barren record of events. It can scarcely be doubted, however, that much of it is a genuine chronicle

<sup>1</sup> ['Vishņu Purāṇa,' p. 463.]

<sup>2</sup> His daughter, Brabira, married Visvarawa Muni, the father (by another wife, Nikaksha) of Rayana, the demon king of Lanka, or Coylon, afterwards killed by

of persons, if not of occurrences. That it is discredited by palpable absurdities, in regard to the longevity of the princes of the earlier dynasties, must be granted, and the particulars preserved of some of them are trivial and fabulous. Still there is an inartificial simplicity and consistency in the succession of persons, etc. . . . . It is not essential to its credibility or its usefulness that any exact chronological adjustment of the different reigns should be attempted. . . . . Deducting, however, from the larger number of princes a considerable proportion, there is nothing to shock probability in supposing that the Hindú dynasties and their ramifications were spread through an interval of about twelve centuries anterior to the war of the Mahabharata, and, conjecturing that event to have happened about fourteen centuries before Christianity, thus carrying the commencement of the regal dynasties of India to about 2600 years before that date, pp. 64, 65. . . . . . . . After the date of the great war, the 'Vishpu Purana,' in common with those Puranas which contain similar lists, specifies kings and dynasties with greater precision, and offers political and chronological particulars, to which, on the score of probability, there is nothing to object, pl. 70 . . . . The 'Vishnu Purana' has kept very clear of particulars from which an approximation to its date may be conjectured. No place is described of which the sacrodness has any known limit, nor any work cited of probable recent composition. Vedas, the Puranas, other works forming the body of Sanskrit literature, are namod; and so is the Mahabharata, to which, therefore, it is subsequent. Both Bauddhas and Jains are adverted to. It was, therefore, written before the former had disappeared; but they existed in some parts of India as late as the twelfth century at least, and it is probable that the Purana was compiled before that period. - p. 71.

[I curtail my quotations in this, as in previous instances, precisely where Prof. Wilson ceases to speak from the absolute knowledge contributed by the Sanskrit writings, of which he is facile princeps the exponent.]

KALI YUGA,-IRON, OR FOURTH AGE, 3101, B.C.

```
(Barhi), Dharman, W.
Kritanjaya, first emigrant from Kosala
(Oude) and founder of the Suryas in
Urukshepa, Urukria, W.
Vatsa, W., cer. J.
Vatsa, (vriddha) Vyúha,
Prativyoma.
                                                             Sauráshtra, T.
(Bhanu, cor. W.)
Divakara.
                                                         Rananjaya.
                                                         Sanjays.
Sakys, W. T. (Slocys).
Suddhodans, Khroddhodans, W., Sudips,
Sahadeva.
(Vira, oar. W. T.)
Vrihadaşwa.
Bhanurstha-Bhanumat, Bahman, Lon-
                                                         Ratula, W.1 (Langalada, Sangala, T.)
   gimanus of Persia? T.
                                                         Prasenajit.
                                                         Kahudraka, Romika, T.
Kundaka, W., cor. J.
Suratha, Surita, W., cor. J.
Sumitra, s. c. 2100, J., 57, T. The last
name in the 'Bhagavat Purana,' said
(Prat'icas'wa, car. W.)
Supratitha.
Marudeva.
Sunakshatra,
Kinnara-Pushcara
Antariksha, Rekha, T.
                                                             to be contemporary with Vikrama-
Suvarna, W. (Suta, Sutapea).
                                                            ditya? T. from this prince the Mewar
Amitrajit.
Vrihadrāja.
                                                             chronicles commence their series of
                                                            Rajas of Saurashtra (see Tab. xxvi.).
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<sup>1</sup> [Ráhula, 'Vāyu Purāņa;' Siddhārths or Pushkala, 'Matsya Purāņa;' Lángala, 'Bhāgavat Purāņa.' 'This and the two preceding names are of considerable chronological interest; for Sākya is the name of the author or reviver of Buddhism, whose

Table XVIII. - Chandra-vansa, Indu-vansa, or Lunar Race, who reigned in Antarveda and Kási; afterwards in Magadhá (Behar), and Indrapraetha (Dihli).

> Muni. Atrí.....

Soma ..... (Lunus, the Moon).

Mercury) married Ila, daughter of the Sun. Buddha .....

Purúravas. Ailas, or .....

Ayu,.... Kings of Kaşı also descended from him (see below).

Nahusha..... (Devanshusha, Dionysos, Bacchus, WD.) Father of Puru and Yadu (see next page). Yayati .....

#### KINGS OF KASÍ (BENARES).

Kshetravriddha, son of Ayu.

Subatra.

Káşí. Kasi.

Rashtra, Dirghatama.

Dhanwantra. Ketumana.

Bhimsratha.

Divodása, becomes a Buddhi

Dyamana.

Pratardan.

#### Santati. Sunitha. Suketana.

Ritadwaja.

Alarka.

Dharmaketu.

Satyaketu. Dhrishtaketu.

Sukamara. Bitihotra.

Bharga,

Bhargabhumi (end in 'Bhagavat P.')

#### LINE OF PURU.

Puru, king of Pratishthana.

Janamejaya, king of Antarveda.

Prachinwat. Pravira.

Manasya.

Bhayada. (Sudhyumna.)

(Bahugava.) Samyati.

Ahamyati.

Raudrasva.

Riteyu, car. W.
Rantinara, Rantimara, W.
Tansu, W. (Sumati).
(Raibhi or Anila, car. W.)
Dushyanta or Dushmanta, husband of

Sakuntala. BHARAYA, king of Antarveda and

India. Vitatha, or Bharadwaja, adopted.

Bhavanmanyu. Vrihatkshatra.

Suhotra.

LINE OF YADU.

Yadu, excluded from succession.

Kroshta. Vrijinavan.

Swahi.

Rishadyu. Chitraratha.

Saravindu.

Prithusravas. Tamas, or Dharma.

Usanas.

Siteshu, Siteyas, W. cor. H. Ruchaka, Rukshma, W. Kavalha, W. cor. J.

Paravrata, line extinct.

Jamodhya, Jyamagha, W.; from

Saravindu by another line. Vidarbha.

Krotha.

Kunti.

Drushti, Vrishni, W.

Nirvrati. Dasharha.

Vyoma, Vijaman, W.

birth appears to have occurred in the seventh century, and death in the sixth century, a.c. (s.c. 621-543). There can be no doubt of the individual here intended, although he is out of his place, for he was the son, not the father, of Suddhodana, and the father of Rahula, as he is termed in the Amara and Haima Koshas. 'Vishnu Purana,' p. 463.

LINE OF PURU (continued). Hastin, built Hastingpur.1 Ajamidha, reigned at do. Riksha, do.2 Samvarana. Kunu, from whom also descended the Magadha princes (see tab. xx. and 'V. P.', p. 455). Parikshit, 'V. P.' Jahnn. Suratha. Vidúratha. Sárvabhauma. Jayasena, Aravin 'V. P. (Radhica, Aravi, W.) Ayutayus, Ajita, H. Akrodhana. Devatithi, car. W. Riksha [another son of Akrodhana]. (Bhimasena, car. J.) Dilipa. Pratipa. Santanu. Vichitravíryya, married Ambá and Am-balika, daughters of the King of Kasa, who have issue, after his death, by his half-brother, Krishnadwnipayana or Vyasa, Dhritarashtra and Pandu, whose wives bore the

LINE OF TADU (continued).

Jimutra. Vikrati. Bhimaratha. Navaratha. Dasaratha. Sakuni. Kusambha. Devarata. Devakshetra. Madhu. Anavaratha. Kuru-vatsa. Anuratha. Puruhotra. Ayu, Angasa, W. Satwata (several branches). Andhaka, do. Bhajamana. Viduratha. Surn.

Sami, Samana, W. Pratikshetra.

Swayambhuva.

Hridika (several branches). Devamida.

Sura (numerous projeny by Marusú). Vasudeva, the eldest, who had thirteen

Krishpa and Balarama, with whom this line becomes extinct, by quarrel of the Yadus.

five Pandavas, viz : 1 Yudhisthira (see table xiz.)

Arjuna, father of Parikshita (see do.)

3 Bhims, no descendants,

Nakul, and ) founded the Magadha 5 Sahadeva, j

line (table xx.)

#### SYNCHRONISMS OF THE SOLAR AND LUNAR BACES, T.

T. { Buddha of the Lunar race married Ilâ, the sister of Ikshwaku, s. 1. Harischandra, a. 1. cotemporary of Parasurâma, of lunar line. Sagara, cot. of Taljanga, of do. Ambarisha, cot. of Gadhi, founder of Kananj.

TABLE XIX .- Pandu Dynasty of Indraprastha, or Dihli, continued from the line of Puru of the Chandra vansa, or Lunar line, and collateral with the Magadha Princes, descending from Jarasandha, of TABLE XX.

ACCORDING TO THE 'BAJAVALI,' T .- ['V. P.', 461.] ACCORDING TO THE 'BHAGAVAT PURANA,' H. Yudbisthirs, 1st King of Indraprastha -no issue.

n.c. 3101 J. Partkshita, son of Arjun (son of Abhimanyu, 'V. P.') succeeds.
1300 W. Janamejaya, W.
1100 T. Satánika

Parikshita. Janameja. Asmund.

1 ['It was finally ruined by the encroachments of the Ganges, but vestiges of it were, at least until fately, to be traced along the river, nearly in a line with Dihlt, about sixty miles to the east.'—'V. P.', p. 452.]

2 [Another son, Kanwa.—'V. P.', 452.

'BAJÁVALI,' (continued). 'BRÁGATAT,' (continued). (Sahasranika, osr. W.) Adhuna. Aswamedhadatta Mahajuna. Jesrita. Asimakrishna, Nichakra, W. Nichakra-Nemi, king of Hastinapur (capital washed away)<sup>1</sup> Chakra, built Kausambhi. Dehtwana. Ugarséna. Ushna, Ukata, king of Kausambhi, W. Surséna. Sutasshama. Chitraratha. (Kabiratha, esr. W.) Vrishnimata, Dhrihtiman, W. Résmaroja. Bachil. Sootpála. Sushena. Narhardéva. Mahipati, our. W. Jesrita. Sunitha. Bhupata, Richa, W. Sukhibala Nrichakshu, W. Scovansa. Médavi. (Sukhavatí), W. Sravána. Pariplawa. Kikan. Sunnya. Medhavin. Pudharat. Nripanjaya. Mridu, W. (Durba). Tigma, W. (Timi). Dasunama. Adelika. Huntavarau. Dandapála. Vrihadratha. Vasudána, W. (Sudasa). Dunsála, Sémpala, Satanika. Udayana, W. (Durdamana). Ahinara, W. (Bahinara). Khandapani, Dandapani. Khévanraj, posed, and Pan-duline ended, T. Nimi, Niramitra, W Kshemaka, ear. W.

The 'Rajavali continues the Indraprastha sovereigns of the Lunar race, through three more Dynasties, Tod, viz.:—

SECOND DYNASTY 14, PRINCES, RESGNED 500 YEARS.

Viserwa (contemporary with Sisunaga? T.)

Surien. Sirsah. Ahangsal. Vyerjita. Durbara.

Sodpala. Sursana. Singraja.

Amargoda. Amarpála, Sérbéhé. Padharat.

Madpal, slain by his Rajput minister.

THIRD DYNASTY.

Mahraje, Maharaje of Ferishta? T.

Sriséna, Mahipála. Mahávali. Srupvarti. Netraséna. Samukdana. Jetmala.

Jetmala. Kalanka. Kalmana. Sirmandan. Jeywanga.

Hergúja. Hirasena.

Antinai, resigned to his minister.

[Major Cunningham has investigated this section of the Dihlí line with a view to the illustration of certain local coins derived from the

<sup>&</sup>lt;sup>1</sup> ['His son (Asima-krishna's) will be Nichakra, who will remove the capital to Kausambi, in consequence of Hastinapura being washed away by the Ganges.'— 'V. P.', p. 461.]

type of the Bactrian monarch Strato. As the nomenclature varies in the different authorities, and these lists may be held to be fairly within the limits of legitimate history, I append the modifications' advocated by that numismatist, as well as those cited by him from 'Ward's Hindús.'

POURTH DYNASTY.—Tod.	WARD, Vol. i., p. 24.	'J.A.S.B.', vii., 1854.
Séndhwaja. Mahaganga. Nada. Jewana. Udiya. Jehala. Ananda. Rajpala, invaded Kemson, and killed by Sukwanti, who seized on Indra- prastha, whence he was expelled by Vikramaditya, T.	Dhurandhara, Senodhata, Mahakataka, Mahayodha, Natha, Jirana-raja, Udaya-Sena, Vindhachala Rajapala,	B.C. 230 Yonadhara.  " 210 Senadhwaja.  " 190 Mahiganga.  " 170 Mahnjodh.  " 150 Sarma.  " 130 Jivan-siráj.  " 110 Umed-sen.  " 90 Anandajala.  " 70 Rájapála.  " 60 Dihlí taken by

### Tabun XX.—Kings of Magadha, or Control India, hod. Behar, of the Indu, or Chandra Vansa, Capital, Rajagriha.

#### BARHADRATHA DYNASTY. (See Table xviii.)

Kuru. Vrihadratha, 'V. P.'
Sudhanush. Suhotra. Vrishabha.
Chyavana. Pushpavat.
Kritaka. (Visrata). (Urjs.), Sudhanwan, 'V. P.'
Uparichara—the Vasu. (Sambhava), Juntu, 'V. P.'

#### LINE OF PANDU. (Brought on from page 237.)

Jarasandha, cot, of Yudhisthira and Krishna, B.C. 3101 ? J.

Jarasandha	, cot, of I number there and K	rashpa, B.C. 3101 f J.
B.c. 1400, W. Sahadéva	, Parikshita born, B.c. 1400	), W. Suvrata.
great war	ends.	Dherma.
(Marjari), or	Somapi, W.	(Nribhrata, Wp.)
Srutavat.		Susuma.
Ayuthyus,		Drirhssena, Vrihadséna, Wp.
Niramitra.		Sumati.
Sukshatra.		Suvala, Suddhamva, Wp.
Vrihatkarman	a.	Sunita.
Senajit.	50	Satvajit.
(Srutanjaya.)	E E	Viswaiit.
(Vipra.)	915.	Ripunjaya, 700 Wn., a Buddha
(Suchi).	E 3500	born in his reign, "As. Res."
(Kahema).	1,5	vol. ii., p. 138.3

Derived from a new list, 'obtained from a Perohit in the Punjab.']
Our list,' says Prof. Wilson, 'and that of the 'Vayu,' specifies 21 kings after Sahadeva; the 'Bhagavata' specifies 20, and in another passage states that to be the

SUNAKA DYNASTY, KINGS OF BHARATKHANDA, REIGNED 128 YEARS. (' V. P.' 138 years, p. 466.)

n.c. 915, W. Pradyota, n.c. 700, Wp. 650? | n.c. 915, W. Vişakhayûpa. Bud. Chron. 2100, Jones. Pálaka.

Janaka (Rajaca or Ajaca, Wn.) Nandivarddhana (or Takshac, T.)

SAISUNÁGAS OR S'ESNÁGS, REIGNED 360 YEARS.

('V. P.' 362 years, p. 467.)

B.c. 777, W. Sisunaga, 1962, T., 550, WD., 472, B. car. WD. Kakavarna ......) Kshemadherman. Kshatraujas (Kshetranja). Vidmisāra (Vidhisāra). Ajātaṣatru 450, Wp. 451, \* Bud. Chron, of Ava. Darbhaka, Dásaca. Udayaşwa, Udasi, Ajaya. Nandivarddhana. Mahanandi (Mahahali, Wp. 355.

B.c. 777, W. (Stmalya or Vikhyaat, T.) 415. Nanda, Makapadma, 1602, J., 340, W. He will bring the whole earth under one umbrella; he will have eight sons, Sumålya and others, who will reign after Mahapadma; he and his sons will govern for 100 years. The Brahman Kautilya will root out the nine Nandas.' 'V. P.' p. 468.

## MAURYA DYNASTY, GOVERNED 137 YEARS.

( V. P. p. 470.)

u.c. 315. W. Chandra-gupta Sandracottus | n.c. \$15, W. Daşaratha, car. T. Wu." of Greeks, 1502 J. Vindusara, Varisara. Aşoka Varddhana, patron of the Buddhista, 330, 'Bud. Chron.' Suvasas, Sujaswa, T. Culata, WD.

Sangata, Bandupalita, Wn. Salisaka, Indrapalita, Wo. (Devadharma, WD.) Somaşarman. Saşadharman (Satadhanwa). Vrihadratha.

#### SUNGA DYNASTY, 110 TEARS. ( V. P. 112 years.)

s.c. 178. W. Pushpamitra, puts his master, the last of the death, Mauryas, to 1365, J. Agnimitra, Sujyeshtha, Vasamitra.

B.c. 178, W. Ardraka, Abhadraca, Wo., Badraka, T. Pulindaka. Ghoshavasu. Vajramitra, (Vieramitar, Wp.) Bhagavata.

### kánwa dynasty, 45 years. ("V. P.")

B.C. 66, W. The Kanwa named Vasudeva in.c. 66. W. Narayana, Parana, T. usurps his master's kingdom, 1253, J. car. T. Bhumimitra, cot. of Vikramaditya, T.

Suşarman. (Wilford supposes interval of 150 years before Sipraka.)

number. My copy of the 'Matsya' names but 19, and the 'Radcliffe' but 12; but both agree in making the total 32. They all concur with the text also, in stating that 1000 years had clapsed from the great war, at the death of the last Varhadratha prince; and this is more worthy of credit than the details, which are obviously imperfect.' 'V, P.' p. 465.]

<sup>1</sup> [ Of. also 'Burnouf,' vol. ii. p. 778; 'Huen Tsang Mémoires,' p. 170; 'Bhá-gavata Purana,' xii., i p. 12.]

3 [Buddha Gaya Insc., 'Jour. As. Soc. Beng.', vol. vi. p. 671, 'Jour. Roy. As. Soc.', etc.]

### TABLE XXI.—Andhra or, Vrispala dynasty, of Andhra (Orisea?) or Telingana, in continuation of the Magadha line.

(See Wilford's comparative list from the 'Bhagavat, and three other Purknas, in the 9th vol. of 'As. Res.') [These thirty Andhra Bhritya kings will reign 456 years,- 'Vishnu Purana.' Prof. Wilson adds in a note .- 'The 'Vayu' and 'Bhagavata' state also 30 kings and 456 years; the 'Matsya' has 29 kings and 460 years. The actual enumeration of the text gives but 24 names; that of the 'Bhagavata' but 23; that of the 'Vayu' but 17. The 'Matsyn' has the whole 29 names, adding several to the list of our text ('V. P.'), and the aggregate of the reigns amounts to 435 years and six months.']

B.c. 21. Sipraka, 'a powerful servant of Susarman, kills the latter and founds the Andhra bhritya dynasty; 'Balin, Balihita, n.c. 908, J. A.B. 190, Wb. 1 Krishna Srí Sátakarni Púrnotsunga, Paurnamása ] ear. W. Sátakarna, II. Lambodara Ivilaka, Apilica, Wo. Megha Swati Patumat. Arishtakarman, our. Bhag. Purana. Hala. Talaka, Tiluk, T. Pravilasena. Sundara, named Sätkarna.

Gomatiputra, (Gautami, WD. (Sátkarni IV. car. Bhág. Purána). Sivasrf. Sivaskandha. 408. Yajnaşrî, (Yeng nai of Chinese ? Wb.) Vijaya.

A D. 428. Chandragri, (or Vijaya, last Ma-gadha king, 300, J. 546, T.)

Pulomarchish, (Poulomiem of Chinese? Wn. dies, 648, A.D. Salomdhi, T. cot. of Bappa Rawal of Mewar, A.D. 720 ?)

### TABLE XXII .- Rajas of Kashmer, of the Line of Kuru in the Lunar race: worshippers of Nagas or Snakes.

I have scarcely left myself space in this reprint to attempt to unravel the mystifications of the early Kashmir Chronology. The con-

<sup>1</sup> [Pliny, 'Hist. Nat.', vol. vi. p. 22, 'As. Res.', vol. ix. p. 101. 'Sipraka is variously named, Sindhuka, Vhyu; Simuka, Matsya; Balin, Bhag; and, according to Wilford, Chhimaka in the 'Brahmanda P.', and Sadraka, or Saraka, in the Kumhrika Khanda of the 'Skanda Pusana.' . . . If the latter from of his name be correct, he may be the king who is speken of in the prologue to the 'Mrichebakati.' Prof. Wilson, in a valuable notice on the subject, further reviews the various items of evidence bearing on the date of the Andhras, and arrives at the conclusion that 'the race of Andhra kings should not commence till about 20 years n.c., which would agree with Piny's notice of them; but it is possible that they existed earlier in the south of India, although they established their authority in Magadha only in the first centuries of the Christian era,'—'V. P.', p. 475. Major Cunningham has discovered the name of Sri Satakarni among the votive Buddhist inscriptions at Sanchi. He transcribes the original Phil legend as follows, Rajnya Siri Sitakanias Avesanias Visithi-putasa, Anandasa dianam, 'Gift of Ananda, son of the neophyte Vaishtha, in the reign of Saf Sárkanni'—'Bhilsa Topes,' p. 264. The writing itself is referred to the time of the king of this name, third in the Magadha list, though any such special appropriation of the designation is open to question when we find Prof. Wilson remarking 'The adjuncts Society and Signature. Wilson remarking, 'The adjuncts Succiti and Satikarus appear to be conjoined or not with the other appellations, according to the convenience of the metre, and seem to be the family designations or titles.'—'V. P.', p. 474. See also Stevenson, under Saurashtra infrd, and 'Bombay Jour.', July, 1855.]

jectural results arrived at severally by Prof. Wilson, Captain Troyer,2 and Major Cunningham,3 are subjoined in parallel columns for the scrutiny of future inquirers. Prof. Wilson, without according any great faith to the Sanskrit authority, from which his outline of the history of Kashmir was translated, contented himself with leaving it to carry its own weight. The succeeding commentators have exercised less reserve in the adaptation of the original materials, and hence their rectifications demand a more distinct review. I should naturally desire to abstain from the use of any harsh expression in referring to the exhaustive labors of M. Troyer; but, in truth, I can scarcely bring myself to notice his arguments with much seriousness; and this feeling will, perhaps, be better understood when I say that we are invited to believe that Asoka reigned in 1436 B.C. (vol. ii., p. 435), and that the Scythian Kanishka ought to be dated in the 13th century, B.C. Equally must the author's endeavor to account for the extraordinary lengths of reigns be received with distrust, which line of reasoning is appropriately climaxed by an attempt to show that it was possible that Ranáditva lived and even reigned 300 years (vol. ii. p. 379).

Major Cunningham's ratiocination towards the general settlement of the relative epochs is based primarily upon the assumed fact of Hiranya and Toramána having been contemporaries of the 3rd Vikramáditya of Ujain (s. 466 = A.D. 409), whom the author, in preparatory training for the more complete development of the same idea in his subsequent works, identified with the Chandra Gupta of the Gupta coin series, and the 3rd Vikramáditya. I do not at all wish to contest that there may have been one of the many monarchs who assumed the supplementary titular designation of Vikramáditya ruling over Malwa at or about this period, and that the potentate in question may well have been a contemporary of Toramána of Kashmír, whom, judging from the style of writing on his coins, I should not desire to place so early as Wilson and Troyer have done; but this concession by no means implies an accord with the other portion of the argument, that would bring the Guptas down to so modern an epoch as is there pro-In other sections, Major Cunningham's method of compression is about as summary and as little satisfactory as Troyer's system of expansion, inasmuch as the process of the reduction of the supposed superfluous periods of the Aditya and Gonerdiya dynasties is effected by the easy arithmetic of a diminution of the declared totals of one-half and one-third respectively.

<sup>&</sup>lt;sup>1</sup> ['Asiatic Researches,' xv., and 'Ariana Antiqua,' p. 347.]

<sup>2</sup> ['Rijntarangini,' Paris, 1840.]

<sup>3</sup> ['Numismatic Chronicle,' vol. vi., 1843.]

Wilford, 'Asiatic Researches,' vol. ix., p. 156.] 5 ['Bhilsa Topes,' p. 142.]

There is one point, however, somewhat assuring, that is—the general coincidence of the different commentators in regard to the proper period of the initial date of the Nága dynasty, and, for the present, we must accept this as the single bright spot in the otherwise hazy atmosphere with which Oriental authors so often envelope the simplest history.

'The Raja Tarangini, whence this line is taken, commences with an account of the desicention of the valley by Kasyapa Muni: supposed to allude to the Delage.'— Wilson, 'As. Res.', vol. xv. p. i.—

PIRST PERIOD-KAURAVA BACE, 1266 TEARS.

n.c. 3714. Kashmir colonised by Kasyapa, B.c. 2666, W. Fifty-three Princes, names omitted by Hinds writers, but partly supplied by Mu-hammadan authority, as follows: Suliman. Cassalgham. Maherkan, Bandu-khan, (Pandu of the Lunar line?) LAdi-khfm. Ledder-khan. Sunder-khan,-Hindu worship established. Cunder-khan. Sunder-khan. Tundu-khán. Beddu-khan. Mahand-khán, Durbinash-khan. Deosir-khân. Tehab-khan, dethroned by king of Kabul, Cálju-khán. Luvkhab-khán. Shermabaram-khán. Naureng-khan,conqueredChina. Barigh-khan. Gowasheh-khan. Pandu-khān II. extended empire to the sen. Haris-khan. Sanzil-khan.

Akber-khan.

Nauder-khán. Sanker-khan, slain by Bakra Raja. An interval ensues, and authentie history commences with. 2448. Gonerda, I. Kali Yuga, 653. Gonards or Agnand, a re-lation of Jarasundha, 1400, W. B.c. 1045, P. Damodara, 1st. Gonerda, II. Thirty-five Princes, names forgetten. 1709. Lava (Bal-lava), Loo of Muhammadan historians, B.C. 570, P. 1664. Kausesaya. 1660. Khagendra. 1600. Surendra, cot. with Bahman of Persia. 1573. Godharn, Gowdher, A. A. 1537. Suverna, Suren, do. 1477. Janaca, Jenak, do. 1471. Sachinara, Seijuner, do. 1394. Asoka, established Buddhism. (See pages 216, 240, B.C. 250?) 1332. Jaloka, adopted eastes. 1302. Damodora, II. a Saiva; transformed into a snake. Tartar princes, re-1277, Hushka, Jushka. established Budd-Kanishka, hism. 1217. Abhimanyu, an orthodox Hindú, n.c. 423, W. B.C. 73, P.

¹ [M. Troyer has the following note upon the subject of these fifty-three princes: —¹ C'est sans doute par le vague des expressions de Kalhana, et par le récit des écrivains mahemétans qui font mention d'autres rois avant Gonarda ler, que M. Wilson a été induit à placer avant ce roi une première série de cinquante-trois princes, tandis que le texte, comme je crois l'avoir démontré, ne fixe la durée d'aucane autre série avant celle qui précède le règne de Gonarda iii me. Il scruit en effet très-singulier de trouver deux séries consécutives, qui offriraient le même nombre de rois et la même durée de règne. Je suis bien loin de nier qu'il n'aît pu y avoir plusieurs rois avant Gonarda ler, et j'admets même qu'on a une presque certitude à cet égard; mais le Râdjataranginî n'en dit rien de positif.'—Vol. ii. p. 371.]

second period—gonerdiya dynasty, 1013 years, or 378 years apter adjustment, W.<sup>1</sup>

		AMERICA III	ADSCRIPTION OF THE PROPERTY OF	
B.C.	Cunningham.	Wilson, B.C.	1.C.	
1182	53-32	1182	Gonerda, III. Någa worship resumed, 388	W. 108 P.
1147	61-9	1147	Vibhishana, 370	
1093-6)		1096	Indrajita, 352	
1058	73-1	1060-6	Ravana, 334	
1028	80-8	1030-6	Vibhishana, II. 316	
992-6	89-2	993	Nara (Kinnara), persecuted Buddhists, 298	
952-9	99-2	953-3	Siddha, 280	
892-9	114-2	893-3	Utpaláksha Adutbulabeh, A. A. 262	
862-3	121-9	862-9	Historyfikeha Teornes 944	
824-8	131-2	825-2	History blends Househal 200	
764-8	146-2	765-2	Vasúkula, Ebeshak, " 218	
704-8	163-8	705-2	Mihirakula [Mukula, Troyer], invaded Lanka or Ceylon, 200	
634-8	178-8	635-2	Vaka, 182	
671-8	187-8	572-2	Kshitinanda (Nandana), 164	
541-8	195-2	542-2	Vasunanda, Vistnand, A. A. 146	
489-6	208-2	490	Name II on Done Win 100	
429-6	223-2	430		
369-6	238-2	370	Gopaditya, a pious brahminist, Kul-	
309-6	253-2	310	Gokerna, Kurren, A. A. 64	
251-7	269-11	253	Narandráditya, Nurundrawut, A. A. 46	
3215-4	279-0	216-9	Yudhisthira, surnamed the blind, (see	
	210-0	resur	Lunar race?) 28	
		腦力	ADITYA DYNASTY, 192 YEARS.	
167-3	287-6	168-9	Pratapaditya, kinsman of Vicramaditya, 10	w.
135-3	303-6	136-9	Jalaucas, Juggooh, A. A. 22	
103-3	319-6	104-9	Tunjina, a great famine, Bunjir, ,, 54	
67-3	338-6	66-9	Vijaya, Bejeery, ,, 90	
59-3	341-6	60-9	Jayendra, Chander, 98	
22-3	360	23-9	Arya Raja, of miraculous accession,	
		1700	(Sandhimati), 135	400, P.
			GONERDIYA LINE RESTORED, 592 TEARS, 433 ADJUSTED,	OR
A.D.	A.D.	A.D.		
24-9	383	23-3	Méghaváhana, Megdahen, A. A., invited Bauddhas, and invaded Ceylon.	
58-9	400	57-9	Sréshtaséna, or Pravaraséna.	
88-9	415	87-3	Hiranya, contention with Toramana Yu- varaja, contemporary with Vicramaditya.	
118-11	430	117-5	Mătrigupta, a Brâhman from Ujjain, suc- ceeds by election,	471 W.
123-8	432-6	122-2	Pravarasena, invaded Silāditya of Gujarāt, (table xxvii.)	476
183-8	464	185-2	Yudhisht hira II.	499
204-11		224-5	Nundrávat, Naréndráditya, or Lakshman'a	522
217-11		237-5	Ranaditya, married daughter of Chola Raja,	
517-11	The second control of	537-5	Vicramaditya, supposed an interpolation (Ujjain princes?)	
559-11	576-6	579-5	Baladitya, last of the Gonerda race,	592

See also 'Ayin-Akbari,' vol. ii. p. 164.
 The fractional figures express the months of the year to which they are in each case appended.
 Note, p. 364.

NAGA OR KARKOTA DYNASTY, 260 YEARS, 5 MONTHS.

Troyer.	Cunningham.	Wilson.	
A.D.	A.D.	A.D.	
597-3	594-6	615-5	Durlabhaverddhana, contemporary with Yezdijird.
633-3	630-6	651-5	Pratapaditya, founded Pratapapur.
			Durlabhaca, car. W.
683-3	680-6	1701-5	Chaudrapira, or Chandranand, a virtuous prince.
691-11	689-2	710-1	Tărăpira, a tyrant.
695-11	693-2	714-1	Lalithditya, conquered Yasovarma of Kanauj, (Yaso- vigraha of inscriptions) and overran India.
732-7	729-9	750-8	Kuvalayapira.
733-7	730-9	751-8	Vajraditya,
740-7	737-9	758-8	Prithivyapira.
744-8	741-11	762-10	
751-8	748-11		Jajja, an usurper, deposed by
754-8	751-11	772-10	Jayapira, married daughter of Jayanta of Gaur, en- couraged learning, invaded Bhima Séna of Gujárat, 841?
785-8	782-11	803-10	Lalitapira.
797 8	794-11	815-10	Sangramapira II. or Prithivyapira.
804-8	801-11		Vrihaspati, or Chippatajaya, son of a prostitute, whose five brothers governed in his name.
816-8	813-11	834-10	Ajitapira, set up by the same usurpers.
852-8	849-11	870-10	Anangapira, restored to the succession.
855-8	852-11	873-10	Utpalapirs, last of the Karkota race.
		110	UTPALA DYNASTY, S4 YEARS 5 MONTHS.2
857-8	854-11	875-10	Aditya Vermā, or Avanti Vermā, a severe famine.
886-8	883-2	904-1	Sankara Verma, invaded Gujjara and Raja Bhoja (? see Malwa), Kashmir cycle brought into use, 59.
904-8	901-10	922-9	Gopála Vermá, kilted in youth.
906-8	903-10		Sankata, last of the Verma race.
906-9	903-10	924-9	Sugandha Rani, recommended the election of
908-9	905-10	926-9	Part ha The Tatris and Ekangas powerful.
924-9	920-10	941-9	Nirjita Verma, also called Pangu, the cripple.
925-9	921-10	942 9	Chakra Verma, civil wars.
936-9	931-10	952-9	Sura Verma.

1 Renaud, 'Mémoire sur l'Inde,' p. 189; 'Noveaux Mélanges Asiatiques,'

vol. i. p. 196.

2 [Prof. Wilson, in anticipation of the due course of publication, has obligingly favoured me with the subjoined note on an inscription which, under the double aspect of geographical proximity and identity of family names, seems to establish some sort of connexion between its line of kings and the Varma dynasty of Kashmir:]— An inscription of some interest has lately been communicated to the Royal Asiatic Society by the President, having been sent to him by Mr. John Muir; unfortunately it is not known where it was originally found, beyond the fact that it was procured in the north-west of Hindústún; another defect is want of date, but the character in which it is written renders it probable that it is not later than the seventh or eighth century. The invocation shows it to belong to the orthodox system, as it is addressed century. The invocation shows it to belong to the orthodox system, as it is addressed to the Creator of the Triad, Brahma, Vishou, and Rodra, for the sake of the creation, preservation, and destruction of the universe. The document records, in a plain and uninflated style, the following succession of princes, of the Yadu family: 1. Sena Varma; 2. Årya Varma, his son; 3. His son, Srideva V.; 4. His son, Vradipta V.; 5. His son, Iswara V.; 6. His son, Vriddha V.; 7. His son, Siddha V.; 8. His son, Jala V.; 9. His son, Yajan V.; 10. His son, Achala V.; 11. His son, Divakara V.; -12. His younger brother, Bhāskara V., who married Jayavati, daughter of Kapila-varddhana; 13. Their daughter was Iswari, married to Chandra-gapta, son of the king of Jálandhara: on her husband's death she founded an establishment for religious mendicants, which foundation it is the purposes of the inscription to record religious mendicants, which foundation it is the purpose of the inscription to record.

Troyer,	Cauningham.	Wilson.	
937-9	932-10		Part'ha, a second time.
938-9	933-4	954-3	Chakra Verma, ditto
939-3	933-10	954-9	Sankara Verdhana.
939-7	935-4	956-3	
939-11			Unmatti Vermā.
941-11		959-9	
			LAST OR MIXED DYNASTY, 64 YEARS 4 MONTHS.
942-1	939-4	960-3	Yasaskara Deva, elected sovereign.
012-1	948-4	969-3	Sangrama Deva, dethroned and killed by
951-1	948-10	969-9	Parvagupta, slain at Suréswari Kshetra.
952-10		971-3	Ksbemagupta, destroyed many Viharas of Buddhists.
961-4	958-8	979-9	Abhimanyu, intrigues and tumult.
975-2	972-8	993-9	Nandigupta, put to death by his grandmother Didda.
976-2	978-9		Tribhuvana, shared the same fate.
978-2	975-9		Bhimagupta, ditto.
982-6	980-0	1001-1	Didda Rani, assumed the throne herself, adopts
1006-9	1003-6	1024-7	Sangrama Deva II. (with whom Wilson's list closes.)
	1028-4	1032	Hariraja and Amanta Deva, his sons (continued from the printed Tarangini.)
	1080-9	1054	Kalasa.
	1088-10	1062	Utkarsha, and Harsha devn.
	345.07	(1062	Udayama Vikrama, son of the latter.
	1100-7	1072	Sankha Rája.
	1110-11	1002	Salha, grandson of Udayama.
	1111-3	1072	Susalha, usurper, do,
	1127-3	1088	Mallina, his brother (end of Kalhana Pandit's list.)
	1127-9	1088	Jaya Sinh, son of Susalha, (Jona Rája's list.)
	1149-9	1110	Paramana,
	1159-3	1119	Bandi deva.
	1166-3	1126	Bopya deva.
	1175-7	1135	Jassa deva, his brother, an imbecile.
	1193-8	1153	Jaga deva, son of Bopya.
	1208-2	1167	Rája deva.
	1231-6	1190	Sangrama deva, III. a relation
	1247-6	1206	Ráma deva.
	1268-7	1227	Lakhuna deva, adopted.
	1281-10	1261	Sinha deva, new line; killed by his brother-in-law
	1296-4	1275	Sinha deva II. an usurper, who was himself deposed and killed by the Mlechas under Raja Dullach (?)

The name or title Varmma, or Varma, is especially appropriate to a man of the Kshatriya, the military and regal caste; it affords, therefore, no safe clue to the identification of this dynasty; but the mention of Jalandhara intimates their position among the mountains not far from Kashmir, where we find a race of princes bearing the same title; the first of these, Avanti Varma, began his reign after the middle of the ninth century, and he may have been a scion of the family recorded me this inscription, which, as above stated, is in a character that may be possibly of the seventh or eighth century, just prior to the date of the Varma dynasty of Kashmir. Thirteen generations, of what appears to have been a peaceable succession, will carry us back at least two centuries, so that we may safely place the first prince of this series in the sixth century of the Christian era.']

<sup>1</sup> The lengths of reigns only are given in the original: calculating therefore backwards from 'Alá-ud-din, it becomes necessary to curtail the reign of Harirája (52 years) by about 30 years, to form a natural link with Wilson's date of Sangráma Deva.—J. P. [Major Cunningham ('Num. Chron.', vol. vi.) has pointed out the error committed by Prinsep in this place in confounding 'Alá-ud-din of Dihli with the Kashmér monarch of the same titular designation, whose date should therefore

be corrected to A.D. 1351, or, as adjusted by Major Cunningham, to 1339.]

#### THE BHOTA DYNASTY.

A.D.	Cunningham.	Wilson,	
Udayana- dera Kota Rá	} 1318-10 ni 1334-0	1294 1294	Sri Rinchana, obtained throne by conquest. Kota Ráni, his wife.

[The names of the	Musalman	k	ings	are continued from Major	Cunnin	agha	m's
paper-]			18.a			-	
Shah Mir	1334	6	10	Fatch Shah	1483	Z	28
Jamshir	1337	5	0	Muhammad (2nd time)	1492	7	28
Ala-ud-din	1339	4	0	Fatch Shah (ditto)	1513	- 5	7
Shahāb-ud-dín	1352	0	23	Muhammad (3rd time)	1514	6	7
Kutb-ud-din		0	23		1517	5	7
Sikandar		0	23	Muhammad (4th time)	1520	- 6	7
Alf Shah		0	23	Názuk Sháh	1527	5	7
Zain ul Abidín		0	23	Muhammad (5th time)	1530	5	7
Haidar Shah		0	23	Nazuk Shah	1537	5	7
Hasan		0	23	Mirza Haidar	1541	- 6	7
Mahammad	1481	0	28	Humáyán,			
Kashmir finally annexed	to the Mo	gh	ul I	mpire under Akbar, in 1586	, A.D.		

### Table XXIII .- Chohan or Chahuman Dynasty, at Ajmir, Dihli, and afterwards Kotah and Bunds.

The Chohans, one of the four Aguicula tribes, Chohans, Purihars, Solanki and Pramara, said to have been produced by a convocation of the gods on Mount Aba supposed of Parthian descent.'-Tod, vol. ii. p. 451.

B.C. 700 Anala, or Anhul Chouhan, established at Garra Mandela. Suvieba. Mallan, source of Mallani tribe? Galan Sar.

Ajipala, Chakravartti, founder of Ajmír, 202 of Virat era? A.D. 145

Samanta Déva, 500 Maha Déva, Ajaya Siah, P Ajipala, Wilford. Vindasar, Vairi Vihanta,

684 Dola Rai, lost Ajmir to Muhammadana. 695 Manikya Rai, founded Sambhar: hence title of Sambri Rao, slain by Moslem invaders under Abul Aas; eleven names only in Jacga's catalogue, Tod, vol. ii. p. 444.

Mahasinha. Chandra Gupta, (of Allahabad pillar inscription? See Kanauj.) Pratap Sinh. Mohan Sinh. Setarai. Naguhasta. Lohadhar. Vira Sinh, II.

Vibudh Sinh. Chandra Ray.

<sup>1 &#</sup>x27;The names of the Muhammadan chiefs, who held possession of the valley, sometimes independently, under the Putan and Moghul Emperors, are so distigured in Nagari characters as to be hardly recognizable. Jona Rhja's list continues to Zein-ul-ab-ud-din, \$15 Hijra, whence Sri Vara Pandit continues it to Fatch Shah, a.p. 1477. The 'Rajavali Pataka' beings on the line to Akbar's conquest in 1560,' (see Muhammadan dynastics.)—J. P.
<sup>2</sup> 'Bombay Government Selections,' vol. iii, p. 193.

Harihara Ray (Hursráj, Tod), defeated Subaktegín. B.C. 770

Basanta Rai.

Balianga Rai (Belundeo? Tod), or Dheruca Gaj, slain defending Ajmir against Sultan Mahmúd.

Pramatha Rai.

Anga Rāja, (Amilla Deva, Dihlf inscription).
1016 W. Visala Deva, from inscriptions, 1031 to 1095, Tod, interpolated date in the books of Chand, S. 921.

Seranga Deva, a minor.

Ana Deva, constructed the Anah Sagar, at Ajmir. Hispal (of Ferishtah), father of

977 Jayah Sinh (or Jypal of Ferishtah, burned himself, 1000, see Malwa), extended his dominion to Lahore, etc.

Ananda Deva (or Ajay deo), Anandpål, F. Someswara, married daughter of Anangpål of Dihli. 1000

Prithiray, of Lahor, obtained Dihli, slain by Shahabuddin, 1192. 1176

Rainasi, slain in the sack of Dihli, T. 1192

Vijaya Ray, adopted successor of Prithiray (see Dihlí pillar). Lakunsi, thence twenty-six generations to Nonad Sinh, present chief of Nimrana, nearest lineal descendant of Ajipal and Prithiraj.2

### Table XXIV.—Haravati or Harauti branch of the Chohan Dynasty.

The Haras are descended from Anuraja, a son of Visaladeva, or more probably of Manikya Rai, Tod, vol. ii. p. 454 (see preceding table).

Anuraja, took possession of Asi, or Hansi, in Hariana. A.D.

Ishtpala, obtained Asirgarh, miraculously. 1024 Chand Karna.

Lok Pal.

1192 Hamira (known in Prithirāja wars), killed in 1192. Kalkarna. Maha Magd. Rao Bacha,

Rao Chand, slain with all but one son by A'la-ud-din.

Rainsi, protected at Chitor, obtained Blynsror. Kolan, declared lord of the Pathar, (central India.) Rao Bango, took possession of the Hun court of Mynul. 1300

1341 Rao Deva, summoned to Lodi's court, abdicated to his son. Hara Raja, founded Bundi; country called Haravati after him. Samarsi (Samara Sinh), conquered the Bhils, Napoji, feud with Solankhi chief of Thoda. Hamú-ji, defied supremacy of Rana of Mewar.

Birsingh.

1419 Biru.

Rao Banda, a famine, 1487, expelled by his brothers 1486 Samarkandi and Amarkandi, who ruled twelve years. Narain Dás, recovers Bundi.

Suraj Mal, assassinated by Chitor Rana.

1534

Scortan, a tyrant, banished. Rao Arjun, his cousin, killed in defence of Chitor.

Rao Raja Surjan, Chunar, and Benares given to him. Rao Bhoja, separation of Bundi and Kota. 1575

#### BUNDÍ BRANCH.

1578 Rao Ratan, built Ratanpur, his son Mādhū Sinh receives Kotā from Jehāngir, henceforward separation.

The lath of Firez, bearing Visela Déva's name, is dated S. 1220, in the reign of Vigraha Rai Deva. See ents, vol. i. p. 325; also 'As. Res.', vol. vii.
 See also lists in 'Ayin-i-Akbari,' vol. ii. p. 94-97, etc.

A.D. 1578 Gopinath.

1652 Chatra Sál, took Kalberga, under Aurangzib, killed with twelve princes in battle of Ujjain-

1658 Bhao Sinh, received government of Aurangabad under Aurangaib.

1681 Anurad Sinh.

1718 Budh Sinh, supported Bahådur Shåh, dispossessed by Jypur Råja.

1743 Omeda, regains Bundi, 1749, with Holkar's aid, retires 1771, dies 1804. Ajit Sinh, Jugraj, murders Rana of Mewar.

1770

Rao Raj, Bishen Sinh, minor, protects Colonel Monson's flight.

1821 Ram Sinh.

#### KOTAH HEANCH.

1579 Madhu Sinh, son of Rao Ratan (see above).

1630 Mokund Sinh.

- 1657 Jagut Sinh.
- 1669 Keswar Sinh.
- 1685 Ram Sinh,
- 1707 Bhim Sinh, entitled Maharao.

1719

- 1723 Durjan Sál, without issue, Zálim Sinh, born 1740. Ajit, grandson of Bishen Sinh.
- Chatr Sal, succeeded by his brother. Goman Sinh,—Zalim Sinh, Foujdar. 1765
- Omeda Sinh, 1770 Regent.
- Kiswar Sinh, Madhu Sinh, ditto. 1819

### TABLE XXV .- Rajas of Malwa, Capitals Ujjayana, and Mandor.

'This line is taken from Abú'l Fazl,' and is supposed to have been furnished from Jain authorities: it agrees nearly with appendix to 'Agni Purana.' .- Wilford.2

In early ages Mahahmah founded a fire temple, destroyed by the Buddhists, but restored by

- B.c. 840 Dhanji (Dhananjaya, a name of Arjun) about 785 before Vikramaditya (see Anjana, Burmese list).
  - Jitchandra.

<sup>1</sup> ['Ayin-i-Akbari,' vol. ii. p. 49, et seq.
<sup>2</sup> [As Wilford's lists, purporting to be taken from the 'Agni Purana,' were largely quoted in the original edition of this work (A.D. 1835), it is necessary that I should annex the caution in the reception of that author's data since enjoined by Prof. Wilson :-- ] 'Col. Wilford (Essay on Vikramāditya and Sālivāhana, 'Asiatic Researches,' vol. ix. p. 131) has made great use of a list of kings derived from an appendix to the 'Agni Purana, which professes to be the 63rd or last section. As he observes, it is seldom found annexed to the 'Purana.' I have never met with it, and doubt it ever having formed any part of the original compilation. It would appear from Col. Wilford's remarks, that this list notices Muhammad as the institutor of an era; but his account of this is not very distinct. He mentions explicitly, however, that the list speaks of Salivahana and Vikramaditya; and this is quite sufficient to establish its character. The compilers of the 'Purana' were not such bunglers as to bring within their chronology so well-known a personage as Vikramadityn. There are in all parts of India various compilations ascribed to the Puranas, which never formed any portion of their contents, and which, although offering sometimes useful local information, and valuable as preserving popular traditions, are not in justice to be confounded with the Puranss, so as to cause them to be charged with even more serious errors and anachronisms than those of which they are guilty.—'Vishnu Purans,' pp. 38-9. London, 1840—Again, p. 73, preface, 'The documents to which Wilford trusted proved to be in great part fabrications, and where genuine, were mixed up with so much loose and unauthenticated matter, and so overwhelmed with extravagance of speculation, that his citations need to be carefully and skilfully sifted, before they can be serviceably employed."

B.C. 670 Sáliváhana.1 Nirvahana. 680 580 Putra Rájas, or Vánsávalis, without issue. 400 Aditya Punwar, elected by nobles (cot. Sapor, A.D. 191, W.) 390 Birma or Brahma Rája, reigned in Vidharbanagar. Atibrahma, at Ujjain, defeated in the north, Sadhroshana Sadasva-Sena<sup>2</sup>). 271Heymert, Harcha Megha, killed in battle (misplaced, Wn.) 191 Gundrup, Gardabharupa, Bahram-gor? of Wilford, Vieramanitra (3rd of Wilford, A.D. 441 Yesdejird?) Tuar tr. 91 56 44 Chandrassen, possessed himself of all Hindústan. A.D. 135 Karaksen, Surya Sena, W. 676. 215 Chaturkot (Sactisinha succeeded, W.) Kanaksen (see Saurushtra, which he conquered ? 144, Tod). Chandrapál. 216 302 Mahendrapal. 402 409 Karmehandra. 410 Vijyananda, adopted a successor (his son being an infant) Sindula, W. Munja, killed in the Dekhan (reigned A.D. 993 according to Tod).

Brooks (S. 540), by Tod. 567 A.D. Kalidas flourished.

Jayachandra, put aside in favour of
Japachandra, 'Bavishya P.') 470 483 583 593 598 Rana Raja. Rána Baju. Rána Jalu. 603 604 620 Rána Chandra, 654 Rána Bahádur 659 Rana Bakhtmal. Ráy Suhenpál. Ráy Keyretpál. 664 669

Ray Anangapal (rebuilt and peopled Dihli, 791, Tod).

Kunwerpal, 734 735 Raia Jagdeva, of the Chohan tribe.

745 Jagannath. 755Hara deva. 770 Vasu deva.

674

786 Suradeva.

Orientalists do not rely much upon Wilford's speculations in these days; but as evidence imperfect in itself has often some foundation in truth, it may not be inappropriate to transcribe the following, which seems oddly to assimilate with some of the indications noted at p. 274-5, vol. i., in regard to the Gupta succession:—'As there are several kings and legislators called Vikrama; in the same manner we find also several Salivahanas. This grandson of Dhananjaya is made contemporary with another Vikramiditya, who is supposed to have begun his reign a.p. 191; but, according to others, either in the year 184 or 200. In Raghunath's lists, current in scording to others, either in the year 184 or 200. In augustates uses, current in the western parts of India, which have appeared in print, instead of Sáliváhana, we find Samudrapála.'—'As. Res.' ix. 135. See also pp. 146-7, iðid; and the curious tale in connection with Sukáditya or Bhartribari, brother of Vikramáditya, and his retirement to Bhitári, on the Gumti, near which place, Wilford remarks, 'is a stone pillar, with an inscription, containing only a few couplets from the Mahábhárata:' (see swite, p. 240, vol. i., Bhitári Lát Inscription).]

Vasudeva of Wilford, Basdoo, Ferishtah. a.D. 390, father-in-law of Bahram

(see Kanauj

<sup>3</sup> [See Pehewa or Thaneswur Inscription, 'Jour. As. Soc. Beng.' vol. xxii. p. 673, dated 279 Samyat, but of doubtful attribution. Names recorded: 1, Mahendrapála; 2, Jatula; 3, Vijrata; 4, Yajnika; 5, Sagga; 6, Purna; 7, Devaraja; 8, Ramchandra; 9, Bhoja.]

4 The other two Rajas Bhoja, Tod fixes in 665 (from Jain MSS.) and 1035, the

father of Udavati.

Kharva-varman,

Yaşo, A.D. 1144?

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A.D. 801
            Dharmadeva.
      815
            Bhaldeva.
      825
            Nanakdeva.
      834
             Keyratdeva.
             Pithoura.
      845
                                                                Uliain Inscription, 8, 1600—
      866
            Maldeva, conquered by Sheikh Shah, father)
               of 'Ala-ud-din.
             Sheikh Shah, from Ghazni.
                                                                 Krishna Raja.
     1037
             Dharma Rája Soud, Vizir during minority of
                                                                 Vaira Sinha.
             'Ala-ud-din, who put him to death.
Kemal-ud-din, murdered by
     1057
                                                                 Siyaka.
                                                                 Amoghavasra, or Vak-
            Jitpal Chohan (Jaya Sinh of Dihli and La-
                                                                   pati, otherwise Val-
     1069
               hore? 977) a descendant of Manikya Rai?
                                                                   labhanareudra.
     1089
            Harachandra.
     1109
             Keyratchand.
     1111
             Oogersein.
     1124
             Surajnanda.
            Tippersein, or Beersen, dispossessed by
     1136
            Jelal-ud-din, an Afghan.
     1146
            Alam Shah, killed in battle by
Keraksen, son of Beersen, emigrated to Kamrup, married the king's
     1168
     1192
               daughter, succeeded to the kingdom, and regained Malwa.
                                                                      [The Astronch Inscrip-
tion farations the
following names, 1]
                                                   Uliain Inscription.
                          Bhoja deva.
                                                 Udayaditya deva.
                                                                        Hari-varman.
                          Udayaditya.
                                                 Naravarma deva.
                                                                        Aditya-varman.
                          Naravarma.
                                                 Yasovarma
                                                               deva,
                                                                        Isvara-varman,
                                                                           (born of Ari-
                          Yasovarma, A.D.
                                                   A.D. 1137.
                                                 Jayavarma
                            1137.
                                                                deva.
                                                                           kāri,
                                                                                    eldest
                         Ajayavarma, A.D.
1143.
     1200 Narbahen?
                                                    1143.
                                                                          daughter of the
                                                 Lakhan, or Laksh-
                                                                           Gupta race.)
                          Vindhayayarma,
                                                   mivarma deva, a
second son of
                                                                        Sinha-varman.
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Amushyayana.

Subhatavarma.

Arjuna, A.D. 1210.

<sup>1</sup> Undated. See 'Jour. As. Soc. Beng.' vol. v. p. 482.
<sup>2</sup> Piplianagar, in Bhopâl (Shujâlpur) copper plates, dated Samvat 1267, 'Jour. As. Soc. Beng.,' vol. v., p. 380:—'An inscription on a Tâmba Patra found in the village of Pipliânagar, in the Shujalpur Perganah, by L. Wilkinson, Esq., Political Agent, who says, in a letter to the Editor, 'I owe you many apologies for the delay which has transpired in forwarding to you copies and translations of the three remaining Tamba patras found at Piplianagar in 1836. I have now the pleasure to forward a copy and translation of the oldest dated in Samvat 1235. It seems to throw some doubt on the course of succession that appeared to you to have been rendered plain and clear, for eight generations, by the inscription dated Samvat 1267 before submitted to you. That inscription states that Javavarma was succeeded on the gaddi of Mandap (or Mandu) by his son Vindhyavarma, and he by his son Amushyayana, and he again by Subhasavarma, and this last Raja by his son Arjuna; whilst this states that Haris-chandra succeeded Raja Jayavarma, and adds, moreover, in the last verse, that he was the son of Lakshmivarma. This discrepancy may be reconciled by supposing that Raja Harischandra was only a prince of the royal family, and as such became possessed of an appanage and not of the whole kingdom; and the fact that Nilagiri, and not Mandap, was his capital, seems to confirm this supposition, supported as it also is by the title of Maha Kumara, or prince, given to him. I was about to add transla-tions also of the other two inscriptions; but finding that they both correspond, word for word, with that formerly sent to you in all respects but the dates, which are later -the one only by three and the other only by five years-than that of the former inscription, and that they both record grants by the same Raja Arjuna, translations of them would be but an idle repetition. I enclose, however, copies of both, which

A.D. 1220 Birsal.

Purenmall. 1236

1268 Harnand.

Sakat Sinh, killed by Bahadur Shah, King of Dakhan. 1330 (On the division of the Dihli monarchy on Ghiasuddin Tughlak Shah II's

1390 Diláwar Khán Ghori, viceroy of Málwá, assumed sovereignty. (See Mussalman Dynasties.)—'Ayin-i-Akbari,' vol. ii. p. 57.

The inscription on a temple at Oudayapur, taken by Captain Burt in 1838, claims notice in this place, on account of its supplying us with evidence of the existence, and continued currency for more than four centuries, of an era designated by the name of Udayáditys. The nominal roll of the princes associated with this monumental record does not satisfactorily fall in with the traditionary list of the Mahárajas of Malwa; but this need not affect the authenticity of the one or the other, as the provincial dignities, of which the inscription is an exponent, were usually treated en seigneur, whatever title to real power or supremacy the local ruler might chance to possess.

Suravira (of the Pavara line).

Arevalamathana (went to Malava and recovered his former kingdom of Madhya desa, and 'caused this sacred and divine temple to be crected' . . . in the year of the Vikramāditya Saweat 1116, corresponding with the Sāka-year 981, in the Kaliyuga 4160, and in the same of Udayaditya 446.') 4 Sālivāhana,—' Jour. As. Soc., Beng.', vol. ix. p. 548.]

### Table XXVI .- Sauráshtra (Surát and Gujardt). Capital, Balabhipura. The Balabhi, Balhara, or Bala-rais Dynasty.

The Jain chronicles of Jai-sinha, consulted by Colonel Tod, trace the ancestry of Keneksen, the founder of the Méwar family, up to Sumitra, the fifty-sixth descendant from Rama (eide the Surya-vansa list). Solar worship prevailed, afterwards the Jain .- [Tod, vol. i. pp. 231, etc.]

s.p. 0? Maharitu, follows Sumitra, Tod.

Antarita.

Names according to grants dug up in Gujirat,-Wathen. Scuapati, Bhatarka, a.D. 144-190.

144 Kanaksena, emigrates to Sauráshtra Maharája, Dronasinha. (vol. i. p. 216). Dhruvasena I. (vol. i. p. 216). Mahá Madan Sen, Dharapatta.

you may place on record, if you can afford to spare a space for them in your journal. -Schore, 27th August, 1838.' See also 'Jour. As. Soc. Beng.,' vol. vii., p. 736.[Another Nagpur inscription, translated and collated with kindred documents by Ball Gungadhar Shashtri supplies the following list:—1. Vairi Sinha; 2. Bhimaka (his son); 3. Rāja Rāja, or Bhoja Rāja (his son); 4. Bhadra Rāja; 5. Bhoja deva; 6. Udayhditya; 7. Lakshmi dhara; 8. Nara Varma deva (A.D. 1105); 9. Yaşo Varma deva (A.D. 1137); 10. Jaya Varma deva; 11. Lakshmi Varma deva; 12. Vindhya Varma (son of Ajaya Varma); 13. Harischandra (A.D. 1179); 14. Amushayana; 15. Sabhhasa Varma; 16. Arjuna (his son, A.D. 1211).] 'Jour. Bomb. B. Roy. As.

Soc.', vol. i. p. 263,

[See ants, vol. i. p. 256. See also 'Jour. Bomb. B. Roy. As. Soc.' vol. iii. p. 216.

—The Rev. P. Anderson has examined the nominal series obtained from previously published grant of this family, and tested them by the aid of new inscriptions. His

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Names according to grants due up in
Outsest,—Wathen.
A.D.
         Sudentu.
                                                                   Grihasena.
 318
         Vijya, or Ajyasena, founded the
                                                                   Sri dhara Sens, 319.
           Balabhi era, Tod.1
                                                                   Siladitya I.
         Padmāditya,
Sieāditya (466 Gardha-bhela? of)
                                                                  Charagriha, I.
                                                                   Sridharasena, II.
                                                                   Dhruvaséna, II.
         Haraditya,
                                                                   Sridharaséna, III.
         Suryaditya,
                                                                  Siladitya, II.
                                                                   (three names obliterated).
         Somadityn.
                                                             Charngriba, II.
523 Silāditya, III.
559 Silāditya Musalli, IV.
  623 Siladitya, killed, and Balabhi de-
           stroyed by the Parthians, 524.
    ORIGIN OF GEHLOTE, GRAHALOTE, OR SESODIA TRIBE OF SURYA-VANSIS,2
         Kaiswa, Goha, or Graháditya, posthumous son of Siládityu, born
           in Bhander forest.
         Nagaditya, of Bhander.
         Bhagaditya.
         Devaditya.
         Assaditya, founded Aspur in Mewar.
         Khalbheja,
 Grahaditya (others make Nagaditya), father of
713 Buph, or Bappa, seized Chitor, from Mori tribe, A.D. 727, and
founded the Gohila or Gehlote, dynasty of Mewar.
                              (Continued in Table XXVIII.)
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I extract the following summary of dates, forming the resume of Dr. Stevenson's remarks upon his translations of the Western Cave Inscriptions, published in the 'Jour. Bom. Br. Roy. As. Soc.,' vol. v., without in any way pledging myself for its accuracy; indeed, it will have been seen that Dr. Stevenson and myself differ notably in our ideas of the correct epochs of two of the leading dynasties of India; but for this very reason I am the more anxious to allow him to speak for himself in as much of detail as my space will permit me to concede to reasoning that I so far deny myself the opportunity of contesting .-E.T.

"I shall now conclude this paper with a short summary of the chief events mentioned in the Sahyadri inscriptions, in chronological order. . . The dates which have

observations, to the following effect, are merely important in the correction of the orthography of names and titles:— In the Bengal Society's list, the 7th, 10th, and orthography of sames and uties:—In the Bengal Society's list, the 7th, 19th, and
12th of these kings are called Sri Dhara sena, but in both the plates now before me
the names are precisely the same as the second, i.e., Dhara sena, with the addition of
Sri, which is common to all the kings. Moreover Silfadityn is said in the 'Bengal
Journal' to be surnamed Kramaditya. . . The surname is clearly written on
plate ii. Dharmaditya. Three of the other kings are not Dharuva, but Dhruva
sena.'—'Bomb. Jour.' vol. iii. p. 216.]

1 This and the Sri-dharasena of the adjoining list, fixed upon as the founders of
the Balabbi are or servent mere replaced.

the Balabhi era or samvat, may probably be the Suraka of the Puranas, mentioned as a Vikramaditya to mount the throne An. Kal. Yug. 3290, or A.D. 191 or 291 ('As. Res.' vol. iz. pp. 135, 203), Wilford. Many legends related by him of the Aditys, belonging to this dynasty.

The Persian historians make Noshizad, son of Noshirvan, or Maha Banu,

daughter of Yezdijird, the origin of the Sesodia race of Mewar, 53

not been ascertained from inscriptions, but merely made out by calculation, are marked with an interrogation.

- n.c. 200.(?)—A cave was excavated, and an alms-house established in it, on the top of the Nana Ghat, by an Emperor of India, probably Asoka, the first Buddhist Emperor.
- 70.(?)—The Great Cave Temple at Karlen was formed by the Emperor Devabbati, under the superintendence of Xenocrates, (知明確認) or 知明本版() a Greek.
- 65.(?)—A small cave was excavated at Kanheri by the same Xenocrates, in which a supposed tooth of Buddha was deposited, till it was removed to an adjoining tope, as mentioned below.
- 23.(?)—The expedition of the constructors of the cave mentioned below into Malabar, to quell an insurrection there, took place.
- 22.(?)—The control or Satrup cave at Násik was excavated by Ushavadatta, son-inlaw of the Satrap Nahapana, of the Parthian monarch Kshaharata (Phrahates ?).
- 20.(?)—Lands were given to the monks at Junir, who dwelt in the third series of southern caves, by several individuals, and especially by S'isaka, called there S'risaka, the first Andhrabhritya sovereign, while he was yet only prime minister.
- 15.(?)—The Great Temple Cave at Känheri was probably excavated by the same monarch, after he ascended the throne. The name given him above is that of the Matsya Puran; here he receives the name of Balin, that given in the Bhagavat.
- 189.—A tope or mound was constructed at Kanheri to contain the tooth of Buddha, mentioned above, and also in honour of a celebrated Buddhist devotee, by Pushyavarman, who was connected with the Andhra royal family.
  - N.B.—This is the tope opened by Dr. Bird in 1839, and which contained a plate with the date on it.
- 326.—The village of Karanja, on the Ghāts, was made over to the monks at Kārlen by the two great military commanders, who, in the struggles between the regal Satrups and Magadh Emperors, had most likely wrested the adjacent territory from the former and afterwards resigned it to the latter. About the same time, also, the image of Buddha, on the left of the entrance, where these inscriptions are found, was probably executed.
- 337.—The large cave most to the left of those that contain inscriptions at N\u00e1sis was excavated at the command of the queen of Gautami-putra, described as lord paramount of India and Ccylon, and who had established in his capital a college for Brahm\u00e1nical and another for Buddhist science, an institution for teaching archery, and a hospital.
  - N.B.—Reasons have been adduced to show that the era mentioned in this inscription is the Balabhi, and that it was established in commemoration of the overthrow of the Grace-Parthian empire in Western India, by the united forces of the Magadh Emperor and the Balabhi Commander-in-Chief, who rebelled against his sovereign, the reigning royal Satrap, and rendered himself independent. These Satraps had, in all probability, reigned for a long time in their own right, and had prefixed the title regal to their former appellation to point this out. The latest date on any of their coins is Samvat 390, or a.p. 333; for I think, from the form of the letters, that the era must be the common Samvat. We have, then, only to suppose that on the Indus their government subsisted fourteen years after it was overthrown in Gujarát, as the Balabhi era commences with a.p. 319. In accordance with this upposition, none of the 400 regal Satrap coins that were found at Junir in 1846 belong to the two last Satraps. The vaunting, too, of Rudra Dâma, the last of them but one, on the Girnâr inscription,

- a.b. over the Satkarni ruler of the Dakhan, our Andhra monarch, could refer only to some partial success preceding the final catastrophe, as we usually find people boast most when hardest pressed. From our inscriptions it is evident that the hills in which the caves are excavated were sometimes in possession of the one and sometimes of the other party.
- 342.—The monastery cave at Karlen was excavated by a mendicant devotee,
- 410.(?)—Buddaghosha, the author of the Púli work called in Ceylon the 'Atthakatha,' and the Buddhist apostle of the Burman peninsula, set up a middle-sized image of Buddha on the right porch of the Great Temple Cave at Kanheri.
- 428.(?)—During the reign of the Andhra monarch Yadnya S'ri Sût Karni, who is mentioned in the annals of China as having sent ambassadors there, a nophew and other relations of his set up the two colossal images on each side of the perch of the same great cave, and at the same time a village was given to the monks.
- 430.(?) —Other relations of the same Emperor established an alms-house in connection with a cave at Känheri.
- 431.(?)—Others of the royal family established a refectory in connection with another cave there.
- 433.(?)—A monastery cave was excavated at Nasik by command of the wife of the commander-in-chief of the same Emperor.
- 460.(2)—A temple cave at Kudan (Korah), in the Concan, was excavated by the Secretary of the Chief of Salsette, who seems to have exercised authority over a considerable adjoining district of country.
  - N.B.—The above-mentioned works are all that appear to me to derive from the inscriptions probable indications of the period about which they were executed, whether by means of the dates or the names they contain. The time when the others were engraved can only be guessed at from the style of the letters; but none seem to me to have been inscribed on the Sahyādri rocks at a later period than that last mentioned, and certainly none earlier than the first date bere given, bringing them all within the two centuries preceding and the five succeeding the Christian era, during which time Buddhism flourished in Western India, while the modern Hinda system was silently moulding itself into its present form and preparing to take the ptace, at a somewhat later period, of the religion of Buddha, and to exhibit that compound of Vedic pantheism, Buddhistical tenderness for animal life, and indigenal superstition that is now current in India. During, however, the whole period of Buddhist ascendancy, Brahmāns existed, studied their literature, had their hely places, and performed those of their rites that could be performed in private. The common people also worshipped Krishna, Bhavāni, and S'iva, as local gods, in particular districts. The travels of the Chinese Fa Hian show that, at the beginning of the fifth century, Buddhism prevailed throughout India; and those of Whang Thsang show that this was still the case in the beginning of the seventh century. An inscription, of date a.b. 657, originally affixed to a Buddhist temple near Nagpore, shows that it still prevailed in the East at that period ('Jour. Bom. Rey. As. Soc.,' vol. i., p. 150.) It is to be noticed here, also, that there is a discrepancy of 42 years between the date a.b. 342 and a.b. 428."

### Table XXVII.—Gujarát. Capital Patan. The Anhulwara Dynasty, a restoration of the dynasty of the Balharas.

"Ayın Akbari" list collated with that of the "Agui Purana," of Wilford.

A.D. 696 Saila-deva, living in retirement at Ujjain, found and educated,
 745 Banartia, son of Samanta Sinh (Chehán), who founded Anhulpur (Ner walch or Patan), called after Anala Chehán, A. A.

		A.D. 746	Chowra Dynasty of Anhilpoor. 1. Wun Raj, son of Jye Sheker.
806 Jogarája	)	806	2. Yog Raj.
841 Bhima Raja		841	3, Kshem Raj.
866 Bheur		866	4. Bhooyud.
895 Behirsinh	From the 'Ayin Akbari.	895	5. Vair Sing.
920 Reshadat	Raja Aditya, W.	920	6. Rutnaditya.
935 Samanta		935	7. Samunt Singh.
	Dihlí Rája: Bhunda, W.		Mool Raj Solunkhee
		· Ra	Mala. London, 1856.
LÁJAS OF THE SC	LANKHI TRIBE. 80	LUNKI	IRE DYNASTY.

910 W. Mula Raja, usurped the throne.

1025 Chamund, invaded by Sultan

Mahmud (Samanta, W.) 1038 Vallabba (Beyser, or Bisela, 'Ay. Ak.'), ancient line restored.

(Dabisalima, F.), 1039 Durlabba usurped the throne.

1050 Bhima raja.

Kaladeva (Karan, 'A. A.'), Carna-rujendra, or Visala-deva, Wn., who became Paramount Sovereign of Dihlf (see p. 247).

1094 Siddha, or Jayasinh, an usurper (Tod, vol. i. p. 98). Kumarapala, poisoned.

Ajayapala, son of Jayasinha.

List of the successors of Mool Raj. from a copper-plate inscription, dated Samvat 1266 (A.D. 1210), found at Ahmadabad.

Mool Raj dev.

Chamoond Raj dev.

3 Doorlubh Raj dev.

Bheem dev.

5 Kurun dev.

Jye Singh dev. Koomar Pål dev. 6

Ujye Pal dev. 8

9 Mool Raj dev. 10 Bheem dev.

Ras Mala.

#### THE BHÁGELA TRIBE.

Múla (Lakhmul, 'A. A.'), Lakhan-raya, W. without issue. Birdmula, } Baluca-mula, W.D. Beildeva, } of Bhagela tribe. 1209 W. Bhima Deva, or Bhala Bhima Deva, same as the last, W.D.

1250 Arjun deva,

1260 Saranga deva, 'Ay. Ak.' Carna the Gohila, fled to the Dakhan, when in the year 1281 Karan,

1309 Gujarat was annexed to Dihli by Ala-ud-din Muhammad Shah.

### TABLE XXVIII .- Range of Mowder. Capitals Chitor, Udayapur. (Continued from Table XXVI.)

After the destruction of the Balhara monarchy of Saurashtra, and two centuries' sojourn of the family in the Bhander desert, Baph or Bappa conquered Chitor, and founded a new dynasty in A.D. 727. The hereditary title was changed from Gehlote to Aditya.

	Wilson's list.	Tod, from Aitpur inscription (dated Samvat 1684, vol. 1, p. 302).
750	Guhila Bhoja	<ol> <li>Sri Gohadit, founder of Gohila (Gehlote) tribe.</li> <li>Bhoja (Bhagaditya?)</li> <li>Mahendra.</li> <li>Naga (Nagaditya).</li> <li>Syela.</li> <li>Aprajit (compare with Table XXVI.)</li> <li>Mahendra.</li> </ol>

<sup>1</sup> See also 'Ayin-i-Akbari,' vol. ii. p. 74, et seq.; Elliot, 'Jour. Roy. As. Soc.', vol. iv. p. 1.

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Wilson's list,
                                                                   Tod, from Aitpur inscription (dated Samvat 1684, vol. 1, p. 800).
                 Kalabhoja ... 8. Kalabhoja.
                Bhartribhata. 9. Khoman, invasion of Chitor from Kabul 812 a.b.
Samahayika... Mangal, expelled by chiefs.
Khuman ..... 10. Bhirtripad, founded thirteen principalities for his sons in
                                                                    Málwá and Gujarát.
                11. Singhjí, whose Raní, Lakshmi, bore
Allata ....... 12. Sri Allat, whose daughter Haris devi was grandmother of
                 Naravahana... 13. Nirvahana.
                                                     14. Salvahana.
  967 Saktivarma ... 15. Saktikumar, resided at Aitpur, 967, or 1068? Tod, vol. i.
                                                               pp. 243, 803.
Umba Passa.
                 Suchivarma ...
  977
                 Naravarma ...
                                                               Narvarma, cotemporary with Subuktigin.
                 Kirttivarma...
                                                               Yasovarma, do. with Mahmud. Aitpur destroyed.
1027
                 Vairi Sinh, (Vira Sinha deva of Kansuj? See Bengal.)
                 Vijaya Sinh.
                  Ari Sinh.
                  Vikrama Sinh.
                 Samanta Sinh, 1209, W.
                 Kumara Sinh.
                 Mathana Sinh.
                 Padma Sinh.
                 Jaitra Sinh.
                  Tej Sinh.
1165? Samara Sinh, (Samarsi, T.) born 1149; marries Prithi Rai's daughter.
1192 Kerna, or Karan, his son —
1200 Rahup, —attacked by Shams ud din, 1200.
                       Nine princes, occupying fifty years, engaged in crusades, to recover Gaya
from the infidels (Buddhists), T.
                  Bhonsi, recovers Chitor.
                 Lakshman Sinh (Lakumsi, T.), married Ceylon princess.
1274
                 Ajaya Sinh (Ajaysi, T.), resided at Kailwarra.

Ajaya Sinh (Ajaysi, T.), resided at Kailwarra.

Hamira, son of Ursi, recovered Chitor.

Laksha Rhan (Laksha Rhan 
1289
1300
1364
                Laksha Rana (Lakha Rana, T.), rebuilds temples. Expedition to Gaya.

Mokulji, supplants rightful heir Chonda.

Khumbo (Kumbho, T. Gownho, 'A. A.'), defeats Mahmid of Malwa; pillar raised in commemoration at Chiter, Tod, 1439, vol. i. p. 286; vol. ii. p. 761.

Oda, murders his father, and is killed by lightning.
1372
1397
1418
1468
1473
                 Raemal, repels invasion of Dihli monarch Lodi.
                Sanga, Singram, or Sinka, the Kalas or pinnacle of Mewar glory, successfully
resists Babar at Biana, 1526.
Ratus, fell in duel with Bundi Raja.
1508
1529
1532
                 Bikramajít, his brother. Second sack of Chitor by Bahadur of Gujarat; re-
                       covered by Hamayun.
                 Banbir, the bastard, raised to throne by Rajputs.
Udaya Sinh (Oody Sing), third sack of Chiter, 1580, by Akbar.
1540
1583
                 Pertap (Rana), reverses at Udipur and Kumalnir.
                 Amera (Umra), succeeds, recovers the ruined capital; defeats Abdullah Jan. 1610; makes peace with Jahangir.
1596
                 Kerna (Kurn), last independent Rija; embellished Udipur.
Japat Sinh, tributary to Shah Jahan; peaceful reign.
Raj Sinh, embanked Lake Rajsamundra.
1620
1627
1653
 1680
                 Jay Sinh, forms the Lake Jay-samund.

Amera, II. triple alliance with Marwar and Amber, S. 1756.
 1699
                 Sangram Sinh; the jūziyak tax abolished.
Jagat Sinh II. pays chouth to Mahrattas.
1715
1733
1751
                  Pertap, II.
1754
                 Raj Sinh II., country desolated by Mahrattas.
```

Arsi, his uncle, Zülim Sinh's rise.

1771 Hamira, a minor.

Bhim Sinh, his brother. Holkar and Sindia overrun Mewar. Marriage feud of Jaypur and Jodhpur. Kishna Kumar poisoned, and the race of Bappa Rawal extinguished, all but 1777

1828 Jewan (Javan) Sinh, the only surviving son.

### Table XXIX.—Raktor Dynasty of Kanauj, afterwards continued in Marwar, or Jodhpur.

From Tod's genealogical rolls of the Rahtors, preserved by the Jains, vol. ii. pp. 5-7.

A.D. (After the usual Theogeny.) 300 ? Yavanasva, prince of Parlipur ? supposed of Indo-Scythic origin.

390 Basdeo (Vasudeva ,, revives Kanauj dynasty; his daughter marries Ferishtah.

Bahram Sassan, of Persia.

450 Ramdeo, fixed in Mārwār — tributary to Ferce Sassan.

469 Nayana Pāla, conquers Ajipāla of Kanauj — hence called Kāma dhvaja.

Padārat or Bharata, king of Kanauj.

Punja, his son.

570? Dherma Bhumbo, his descendants called Dhanesra Camdhaj (for twenty-one generations bore the name of Rao, afterwards Raja.)

	Aji Chandra.			
	Udaya-chandra. Nirpati,	From inscriptions,2 .	Pynibid Copper Plate, J. A. S. R., vol. x. p. 98, dated 8, 1190 — a.D., 1897.	From coins, old series.« Aparajitadhajapa- rakrama. Apatirurha. Kragiptapara-
	70 TO 10 TO	30 Ann	150 m	shuja ?
	Kenekséna (see	Gupta.	4000	Sri Vikrama.
	Málwá 400?	Ghatotkacha.	- ( - 1011)	Chandragupta.
	Sehesra-sala.	Chandragupta.		Samudragupta.
	Mégháséna.	Samudragupta.	1020	Kumaragupta.
	Virabhadra.	8 son.	-300	Vikrama Naren- dragupta.
	Deosen.	74000	-1630m	Sasigupta?
	Vimalasena.	1	2300	Asvamedhapara- krama.
	***	B0017 1 1		New series.
	Dånasen, Mokunda.	700 ? Yasovigraha or Sriphla.	1 Yasovigraha.	800000000000000000000000000000000000000
70.2894	Bhadu	Mahichandra.	2 Mahi Chandra.	
1016	Kora or Chand-	1072 Chandra deva,	3 Chandra deva.3	2020/07/17/2020
	pal, F.	conq. Kanauj.		Mahipala deva.
	Rajsen.	1096 Madana Pala.	4 Madana pala.	Kumarapala deva.
	Tripāla. Sri Punia.	1120 Govinda Chan- dra.	5 Govinda Chan- dra.	Govinda Chandra.
	(Vira Sinha),	1144 Vijaya Chandra.	6 VijayaChandra.	Jadjeya deva.
	see Bengal.	1163 Jaya Chandra,	7 Jaya Chandra.	Ajaya deva.
712	(Yass varman), see tab. xxii.	died, 1193.		
900	(Såhasanka),see +Vis. Prak.			
	Vijayachandra.		E 9	
1169	Jaya Chandra, (Dal. Pangla).			

Wilford names this prince Sadápála, or Sadasvapala, 'As. Res.', vol. ix. p. 211.

See Essays, vol. i. pp. 3 'Who was also very learned, king of kings, etc., and who gained the kingdom of Kanaya Kubja by the power of his arms."

[See vol. i. pp. 288, etc.; 'Ayin-i-Akbari,' vol. i. p. 80.]

#### Table XXX.—Márwár or Jodhpur. Continuation of ditto.

1210 Sivaji, grandson of Jayachandra, settled in the desert, Kher. Ashthama (Asothama T.)

Doohar, T. Dula Rai, W. made an attempt on Kansuj and Mandor.

Kanhul.

Jalhun. Chado.

Theedo. Siluk or Silko (erigin of the Silkawats or Bhomeds). Biramdeva.

Chonda, assaulted Mandor, and made it his capital, Rinmal, of Gohila mother, made pilgrimage to Gay 1381 1408

Rao Joda and twenty-three brothers had separate fiefs. 1427 1458

founded Jodhpur, and removed from Mandor. Rao Sújoh, or Surajmal; rupe of Rahtor virgins by Pathans. 1488

1515 Rao Ganga

Rao Maldoo becomes chief Raja of Rajputs; fortifies capital. 1531

sends his son as hostage to Akbar; marriage alliance. 1568 1583 Udaya Sinh; Chandra Sinh, upheld by clans, installed by Akbar.

1594 Soor Sinh; named Siwai Raja, a general in Moghul armies.

1619 Rája Gaj Sinh slain in Gujarát.

Jeswant Sinh, died in Kabul.

Ajit Sinh, posthumous. Rabtor conflict at Delhi, 4th July, 1679 (7th Sravan, S. 1716); thirty years' war against empire. Murdered by his sou Abhay Sinh; entitled Maharaja Rajeswar, 1728.

Ram Sinh, son, defeated by his uncle, 1637 1680

1724 1749

1749

Bakht Sinh, who was poisoned in 1762. Vijaya Sinh (Beejy Sinh) disputed possession with Ram Sinh. 1752

Bhim Sinh usurps throne on his grandfather's death, by defeat of Zalim Sinh, 1793

Man Sinh. Feud for Kishna Kumari, the Udipur princess. 1803

### Table XXXI.—The Bikaner Raj, a scion of Jodhpur.

Bika, son of Joda, settled in the Jit country. 1458

1494 Nunkarna.

1512 Jact.

1546 Kalian Sinh.

1573 Ray Sinh.

1631 Karna Sinh. 1673 Anop Sinh.

1708 Sarup Sinh. Suján Sinh.

1736 Zurawar Sinh.

1745 Gaj Sinh.

1786 Raj Sinh, poisoned in thirteen days by

Surat Sinh, regent, who usurped the throne, 1788

vanquished Surtan Sinh and Ajib Sinh. 1799 1804 annexed Bhatner to his dominions.

### Table XXXII.—Ránas of Amber or Dhund'hár. Capital Jaypur.

The Cuchwaha race of Rajputs claims descent from Cush, second son of Rama, king of Ayodhya, who migrated and built the fort of Rotas, on the Sone.

294 Rája Nala, founded Narwar or Nishida. Thirty-two princes—having the affix, Pala. 965

Sura Sinh 966 Dhola (Dula) Rai, expelled from Narwar, founded Dhund'har dynasty. Kankul.

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Maidul Rao, took Amber from the Meenas.
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Hundeo. Kuntal.

Pujandeva (Pajun), married daughter of Prithi Raja. 1185

Bijal. Rájdeo (Sahirdeva? of Narwar, defeated by Mahmúd II. 1251, F.)

Kilan.

Kontal. Junsi.

Udayakarna-his son, Baloji, obtained Amritsir, called Shekhavat, from his grandson, Shekbjí.

Nara Sinh.

Banbir.

Udharao.

Prithi Raj, pilgrimage to Dewal on the Indus: murdered by

Bhima, his son. Aiskarn.

1650 ? Baharmal (Puranmal, W.), paid homage to Bahar.
1586 ? Bhagwan Das, Akbar's general, wedded his daughter to Jehangir.

1592 Mán Sinh, ditto, governor of Bengal, Dakhan, Kábul.

Bhao Sinh, died of drinking. 1615

1621 Mahá Sinh, ditto.
1625? Jaya Sinh, Mirza Rája, poisoned by his son Kerat. Ram Sigh, reduced to mansab of 4000.

ditto Bishen Sinh,

Siwai Jay Sinh, founded Jaypur, published 'Zij Muhamadshah.' 1698

Iswari Sinh. 1742

1760 Madhu Sinh.

Prithi Sinh, II. minor. 1778

1778 Pertap Sinh.

gat Sinh, an effeminate prince, died without issue. 1803

Jay Sinh, III. posthumous, believed supposititious,

It is somewhat difficult to decide where each series of inscription princes, often of most circumscribed local power, may most fitly be inserted in the general list; under the claims of caste, the subjoined sovereigns should be classed with the Chohans of Ajmír; and, under the geographical aspect again, their position might be determined by any one of the contiguous principalities by which the modern clump of Shekawati states is bounded. I have made them follow Jaypur, as to that kingdom they now belong.

Inscription on the Temple of Sri Harsha Shekdwati. Samuat 1030.

1. Gúvakn, Chohdu.

Chandra raja.

Güvaka.
 Chandana.

5. Vákpsti.

Sinha rája, 961 a.D. Vigraha rája, of another race, A.D. 973.

'Jour. As. Soc. Beng.,' vol. iv., p. 367.]

### TABLE XXXIII .- Race of Jesalmer.

Dynasty of the Bhattis, a branch of the Yadu race of the Chandra Vansa, Ted.

Naba, fied from Dwaries to Marusthali—(Bhagavat). Prithibahu—Khira—Jud-bhan (from Bhatti chroniclers). Bahu-bal, espoused daughter of Vijaya Sinh, Malwa.

Bahu, killed by a fall from his horse.

Subahu, poisoned by his wife, daughter of the Ajmír Raja, Mund. Rijh married daughter of Ber Sinh of Malwa; invasion of Farid Shah.

B.C. 94? Rája Gaja, invaded Kandrupkél, in Kashmir.

A.D. 15? Salbahan, fifteen sons, all Rajas, conquered Panjab, expelled from Kabul. Baland, invaded by Turks—his grandson, Chakito, source of Chakit tribe. Kullur, eight sons, all became Mussalmans. Jinj, seven ditto.

Bhatti, court at Lahor, gave name to family. Mangal Rao, expelled by king of Ghazni—settled in Mér.

Majam Rao, his son-

730 Kehur, invaded by the Barahas, 787, A.D. 731.

Tanno, erected Bijnot. 733

813 Biji Rac, continual feuds with the Langas, till 1474. Title Rac exchanged for Rawul. Deoraj, excavated several lakes, one at Tunnot. Munda,

Bachern, tributary to Anandapal of Delhi; invaded by Mahmad. 1008

1043

1155

Bhojdeo conspired against and killed by his uncle.

Jesal, slain in defending Ledorva. Removed capital to Jesalmér.

Salivahan II., throne usurped by his son, Bíjil.

Kailun, elder brother, repelled the Khán of Baloch.

Chachik Deo, extirpated Chunna Rájputs.

Karan, repelled Muzaffer Khán.

Lebbas Sigh en idjet replaced by his son. 1167 1200

1218

1250 Lakhan Sinh, an idiot, replaced by his son. 1270

Punpal, dethroned by nobles. 1275

Jacisi, recalled from Gujarat—defended fort for eight years. Mulraj III., great sack of Jesalmer by Mabel Khan, 1294, Dudd, elected Rawul, second sack and immedation. 1275 1293

1306 Gursi re-establishes Jesalmér. Kéhar, adopted; feuds,
Rao Kailan, or Kerore, conquered to the Indus—lived to 80.
Chachik Deo, fixed capital at Marote; continued feuds.

1473 Bersi, conquest of Multan by Babar.

Sabal Sinh, Jesalmér becomes a fief of empire, under Rawuls Jait, Nunkarn, Bhim, Manohar Das; conversion of Bhattis.

Umra Sinh, predatory incursions.

Jeswant, alliance with Mewar—end of Bhatti chronicle.

1622 Akhi Sinh, Sarap Sinh minister potential.

1761 Mulraja, ditto.

1820 Gai Sinh, ditto, under British protection.

[ Although the dynasty of the Gurha Mundala Rájas can scarcely claim much prominence amid the sovereignties of the larger Indian states, yet the centrical position of their seat of government, and the fullness of the detail of names, render it possible that their annals may tend to throw a light upon the still obscure contemporaneous history of proximate lands.]

History of the Gurha Mundala Rajas. By the late Col. Sir W. H. Sleeman, formerly Commissioner for the suppression of Thugges in the Nerbudda Provinces.

The dominions of the Gurha Mundala sovereigns extended before the death of Sungram Sa, in the year A.D. 1530, over fifty-two districts, containing each from three hundred and fifty to seven hundred and fifty villages, and, collectively, no less than thirty-two thousand two hundred and eighty. But the greater part of these districts were added to their dominions by the conquests of that prince.

These princes trace back their origin in the person of Jadoo Ras to the year Samvat, 415, or A.D. 358, when, by the death of his father-in-law, the Gond Raja Nagdeo, he succeeded to the throne of Gurha. Mundala was added to their dominion by Gopal Sa, the tenth in descent from that prince, about the year A.D. 634, in the conquest of the district of Marroogurh from the Gond chiefs, who had succeeded to the ancient Haihnibunsi sovereigns of Rutunpore and Lahnjee. That this ancient family of Rajputs, who still reign at these places, reigned over Mundala up to the year A.D. 144 or Samvat, 201, was ascertained from an inscription in copper dug up during the reign of Nizam Sa (a.D. 1749) in the village of Dearce in the vicinity of that place. This inscription was in Sanskrit upon a copper plate of about two feet square, and purported to convey, as a free religious gift from a sovereign of the Haihaibunsi family, the village of Dearce in which it was found, to Deodatt, a Brahman, and his heirs for ever. The plate was preserved in the palace with the greatest care up to the year 1780, when it was lost in the pillege of the place, and all search for it has since proved fruitless. There are, however, several highly respectable men still living who often saw it, and have a perfectly distinct recollection of its contents. How and when the Gonds succeeded this family in the sovereignty of Mundala we are never likely to learn; nor would it be very useful to inquire.

This family of Haihaibunsis reigned over Lahnjee, formerly called Chumpanuttu; Rutunpore, formerly called Monepore; Mundala, formerly called Muhiknfuttee (Ma-

hikmati); and Sumbulpore (Sambhalpur).

The Gurha Mundala dynasty boast a Rajpoot origin, though they are not recognized to be genuine. Tradition says a soldier of fortune from Kandiesh, Jadoo Rae, entered the service of one of the Haihaibunsi sovereigns of Lahnjee, and accompanied him on a pilgrimage to the source of the Nerbudda at Amurkuntuk, and eventually, in S. 415 - A.D. 358, succeeded the Gond Raja of Gurha.

When Jadoo Rae succeeded his father-in-law on the throne he appointed Surbhee Partuk as his prime minister, and we have some good grounds to believe, what is altogether singular in the history of mankind, that the descendants of the one reigned as sovereigns of the country for a period of fourteen hundred years up to the Saugor conquest in Samvat 1838, or a.p. 1781; and that the descendants of the other held the office and discharged the duties of chief ministers for the same period. Among the sovereigns during this time, there are said to have been fifty generations and sixty-two successions to the throne; and among the ministers only forty generations. This would give to each reign something less than twenty-three years. In 1260 years France had only sixty-three kings, or one every twenty years.

I shall here give a list of the sovereigns, with the number of years each is said to have reigned. This list, as far as the reign of Prem Narrain, the 53rd of this line, is found engraven in Sanskrit upon a stone in a temple built by the son and successor of that prince at Ramnugur, near Mundals. It is said to have been extracted from records to which the compiler, Jygobind Bajpae, had access; and good grounds to rely on the authenticity of this record for above a thousand years may be found in the inscriptions on the different temples built by the several princes of this house, bearing dates which correspond with it; and in the collateral history

2 We have not altered the system of orthography followed by the author, although at variance with Sir W. Jones' scheme, because there are some names for which we

should be at a loss to find the classical equivalents.-J. P.

In one hundred and sixty years Rome had no less than seventy Cmsars. In two hundred and fifty years the Mamelukes had in Egypt forty-seven sovereigns; and a reign terminated only with a life. The Goths had in Spain, in three hundred years, thirty-two kings.

of the Muhammadans and others who invaded these territories during their reign. The inscription on the stone runs thus: 'Friday, the 29th of Jet, in the year Samvat, 1724 (A.D. 1667), the prince Hirdee Så reigning, the following is written by Suda Seo, at the dictation of Jygobind Bajpae, and engraved by Singh Så, Dya Ram, and Bhagi Rutee.'

As an instance which collateral history furnishes in proof of the muthenticity of this record, it may be stated that Perishta places the invasion of Gurha by Asuf in the year Hijra 972, or A.D. 1564; and states that the young prince, Beer Narain, had then attained his eighteenth year. The inscription on the stone would place the death of Dulput Så, his father, in Samvat 1605, or A.D. 1548, as it gives 1190 years to the forty-nine reigns, and the first reign commenced in 415. The young prince is stated to have reigned fifteen years, and tradition represents him as three years of age at his father's death. This would make him eighteen precisely, and, added to 1548, would place the invasion 1563 A.D.

			Years.
	Jadoo Rae, An. Sam. 415, reigned	3 3/	Okur Seyn, his son, reigned 36
	Madhoo Singh, his son 3	1 1 2	Ram Subee, ditto 24
			Tarachund, ditto 34
0	Jugurnith, ditto 2 Ragonith, ditto 6		6 Odee Singh, ditto 15
	The state of the s		100
0	Mount Story and Junior Street	or 1 0 3	Bhowany Das, ditto 12
0	areanice company many attended		Seo Singh, ditto 25
7	Transfer and access to the contract of the con		Hurnaraen, ditto 6
. 8	Don't Duant area mile district		Subul Singh, ditto 29
. 9	The most record to the second		Raj Singh, ditto 31
10	The state of the s	CONTRACTOR OF THE PARTY	Dadee Rae, ditto 37
11	Bhophl Sá, ditte	000	A 1 TO 3100 000
12	conferment mane transfer and		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
13	Ramchund, ditto 1		Sungram Sk, ditto
14	Soortan Singh, ditto 2		Dulput Så, ditto 18
	Hureehur Dec, ditto		Beernaruen, ditto
	Kishun Deo, ditto 1		
	a significant contract the second contract to		Chunder Sa, his paternal uncle 12
	Muha Sing, ditto 2		Mudkur Sa, his son 20
		W 100	Prem Naraen, ditto
20			Hirdee Sa, ditto 71
21	Pertapadit, ditto 2		Chutter Sá, ditto 7
22			Kesuree Sa, ditto
23			Nurind Sa, ditto (eb. A.D. 1731) 44 or 54
24	Gobind Singh, ditto 2	0 00	Mohraj Sa, ditto 11
	Ramchund, ditto 2	1 06	Seoraj Sá, ditto (sô. A.D. 1749) <sup>2</sup> 7 Doorjun Sá, ditto
	Kurun, ditto 1		Doorjun Sa, ditto., 2
27	Rutun Seyn, ditto 2		Nizam Sa, his paternal uncle (so.
28	Kumul Nyne, ditto 3		1776 A.D.) 27
29	Beer Singh, ditto		Nurhur Sa, his nephew, son of
30	Nurhur Deo, ditto 2		Dhun Singh, brother of Ni-
31	Troo Bobun Rac, ditto 2		zam Sa, but of a different
32	Prethee Rae, ditto 2	1	mother (ab. 1789) 3
	Bhartea Chund, his son 2		Somere Sá, ditto, 9 months (co. 1804)
34	Mudun Singh, ditto 2	0	

At the close of the reign of Sungram Sa the dominion of the Gurha Mundala rajas extended over fifty-two districts, but it is believed that he received from his father only three or four of these districts.

Invasion by Asuf Khan, the imperial viceroy at Kurha Manikpar, in 1564 a. D.]
 Invasion by Balsjee Bajee Rao, A.D. 1742. See also Captain Fells' Inscription,
 As. Res.', vol. xv. p. 43.7]

The two inscriptions which follow refer more or less to localities proximate to the site of the country whose history forms the subject of the preceding remarks.

Inscription from Khajrao, near Chhatarpur, dated 1019 Samuat = 962 A.D.

Nannuka. Sri harsa. Vag Ynti. 6 Yaso-dharma deva. Vijaya. Vihala. Banga. 8 Jaya-varma deva.

This inscription possesses an adventitious interest in the fact, recorded in its text, relative to its having been engraved, 1st, in irregular letters; 2nd, in clear character; and 3rd, 54 years afterwards (S. 1173), re-engraved in Kakuda characters.- 'Jour. As. Soc. Beng.', vol. viii. p. 160.

Kumbhi (35 miles N.E. of Jabalpur) Sauger territory: Inscription, S. 932 = A.D. 876. Dynasty entitled Kula-Ohuri.

1 Yuva-Raja-deva, a descendant of Kartta Viryya, of the race of Bharat.

Kokalla.

3 Gangeyn-deva.

- Jour. As. Soc. Beng.', vol. viii. p. 481.

Karna-deva.

Yasas Karma-deva. 5

6 Gaya Karna,

7 Nara Singha.

8 Vijaya Singha.

Mr. Ommanney, in forwarding the Multaye plates, of which the translation is subjoined, prefaces them with a few remarks:--

There are no such names as Datta Rája, I Govinda Rája, Máswamika Rája, I or Nanda Rája, in the catalogue of Garha Mandala Rájas. They may be descendants of Bakht Buland of Deogarh Balaghat, but it is not probable. It appears that they were Rahtors (Rashtra kutas), but still they were called Ghorowa or Gond,3 which induces me still to think they must have reigned somewhere in these parts. The villages mentioned have not the slightest resemblance in name to any in this district, nor can I discover any at all like them at Hoshangabad or Jubalpar.

[In commenting on Mr. Ommanney's communication, Prinsep adds :--

One of the most obvious corrections is that of the name on the seal, and in the second line of the third page, where the plate is much worn, viz., Yudhasura in lieu of Yudhastara, which the Sadr Amin apparently supposed a corruption of Yudhishthira. The first name also read as Datta Raja should be Durgga Raja.

But the most material correction applies to the date, which Mr. Ommanney interprets as Samvat 1630, or A.D. 1573. The alphabetical type at once proves that this supposition is many centuries too modern, nor do I clearly see how the pandit could so far have misled his master in the translation, seeing that the text is read by Mr. Ommanney himself and the pandit s'ateshu shatkena trins'ottareshu. The

I read this name Durgga Rája.—J. P.

<sup>2</sup> The Sodr Amin reads Maswmaika Raja; but it is probable that the text should be understood as Srimat-Swamika Raja.—J. P.

<sup>&</sup>lt;sup>3</sup> The word supposed to be Ghorowa is precisely the same as that on the seal, the surname of the Raja, Yudhasura, the 'hero in battle,' so that the connection with the Gond tribes cannot be thence deduced. - J. P.

obvious meaning of this is six hundred and thirty besides,—just about the period we should have assigned to the writing on comparison with the Gupta and Gujarkti styles. But it is not at all certain that this is the correct reading, or that the era can be assumed to be that of Vikramádityn. The precise letters in modern character are,

# ग्रक काले संवत्सरे ग्रतेषु \* \* विभोत्तरेषु

Saka kálé samvatsaré s'atszhu ? ? trins'ottarèzhu.

Now, in the first place, the orn is here that of Saka or Salivahana; in the next, after the word s'atesha, hundreds, in the plural number, two unknown characters follow which may be very probably numerals. The second has much resemblance to the modern  $\mathbf{E}$  or eight, but the first is unknown and of a complex form; its central part reminds us of the equally enigmatical numeral in one of the Bhilss inscriptions. It may, perhaps, designate in a cipher the word and  $\mathbf{v}$ , 'in numerals,' thus purporting 'in the year of Saka, hundreds, numerically eight, and thirty over.' A fertile imagination might again convert the cipher into the word  $\mathbf{v}$ , eight, afterwards expressed in figures; but I must leave this curious point for future clucidation, wavering between 630 and 830 for the date of the document, which in either case is of considerable antiquity, and indeed one of the most ancient of such records yet brought to light containing a date.

#### TRANSLATION OF THE MULTAYS PLATES.

(On the Seal) Sri Yudhasura (the adopted name of the prince).

Swasti: Sprung of the pleasing lineage of the Rashtrakûta (Rahtor), like the moon from the ocean of milk, was the Prince Sri Durga Rāja through whose conciliatory conduct to the meritorious, and his vigorous energy, extending his rule to the ocean, secured him the good-will of both parties (his friends and enemies). His son was Govinda Rāja, whose fame was earned in many a battle; from him was born the self-controlling and fortunate Prince Māswamika Rāja, the unrivalled, whose valour is everywhere the theme of song, who never turned his back in battle, and was always victorious. His son is Sri Nanda Rāja, much respected by the pious; handsome, accomplished, humane, faultless, a dreadful avenger (kāla) on his enemies; foremost of the aspirants for military renown, chief of the dignified, and prominent among the active and intelligent, the very tree of desire (kalps drums) to the necessitous.

All natural and acquired qualities seek refuge in his virtuous breast, a firm Brahmana—a firm Bhagavata'—his surname is Sri Yuddhasura' (the hero of battle). He hereby proclaims to all his officers, nobles, and the holders of villages, 'Be it known to all of you that we, for the promotion of our father and mother's virtues, consecrating with water, present to Sri Prabha Chaturveda, of the Kautsa tribe, the grandson of Mitra Chaturdeva, and son of Rana Prabha Chaturdeva, the village named Jalau Kuha, bounded on the west by Kinihi-vajara, on the north by Pipparika, on the east by Jaluka, and by Ujanagrama on the south,—on the full moon of the month of Kartika.

Let this gift be held unobjectionable and inviolate by our own posterity, and by princes of other lines. Should any whose mind is blinded with ignorance take it away, or be accessory to its resumption by others, he will be guilty of the five great sins.

It is declared by the divine Vyasa, the compiler of the Vedas, 'Many kings have

<sup>1</sup> That is, a rigid disciple of Vishnu.

Mr. Ommanney reads 'Ghorowa Sur' (Ghorowa the Sanscrit for Gond), but the word is evidently the same as that on the seal.

in turn ruled over this earth, yet he who reigneth for the time is then sole enjoyer of the fruits thereof. 'The bestower of lands will live sixty thousand years in heaven, but he who resumes it, or takes pleasure in its resumption, is doomed to hell for an equal period."

In the Shakakal, six! hundred and thirty years over, was written this edict (Sasa-

nam) : Aula, the well-skilled in peace and war, wrote it.

### Table XXXIV.—Orizsa, Or-Deza, or Atkala-Desa, hod.

From the Vansavalt, and Raja Charitra, in the Uria language, preserved in the temple of Jagannath, a record supposed to have been commenced in the 12th century. -Stirling's 'Account of Cuttack,' 'As. Res.,' vol. xv., p. 257.

After the usual detail of the Mythology, and early kings of India, down to

Vikramāditya.

A.D.

Bato Kesari.2 142

Tirbhoban deo. 103

Nirmal deo. 236

281 Bhima deva.

Subhan deva. Rakta bahu invades Jagannath by sea, destroyed by an inun-318 dation of the sea, that also formed the Chilka lake.

Indra deva was captured and displaced by the Yavanas, who reigned for 146 years.

ERSARI-VANSA RESTORED.

473 Jajati (Yayati) Kesari, capital Jajepur. Surai Kesari.

I have kept here Shatkenn as read by Mr. Ommanney .- J. P.

I have kept here Shatkens as read by Mr. Ommanney.—J. P. 2 Mr. Stirling says that 'no information whatever is afforded by the Orissa chronicles of the origin of the princes called the Kesari vamsa; the founder of the new dynasty in A.D. 473 was Jajati (Yayati) Kesari, a warlike and energetic prince, but who he was or whence he came we are not apprised. He soon cleared his dominions of the Yavanas, who then retired to their own country. Perhaps the present inscription may in some measure remove this obscurity. It commences with the conquest of Udhra or Orissa by Janamajeya, the king of Telinga. It is possible that this alludes to the prince of that name in the Purapic lists, but the locality of his alludes to the prince of this immediate successors are wholly different from these dominion and the names of his immediate successors are wholly different from those of the Magadha line, and their history is circumstantially told as of events transpired not long antocodent to the Kesari dynasty of Orissa. His son was Dirgharava, and from the latter was born Apavara, who died without issue. The kingdom was then overrun by invaders from foreign countries (perhaps the same designated as Yavanas in Stirling's 'Chronicles'), when Vichittravira, another descendant of Janemejaya reigning in a neighbouring kingdom, possessed himself of Orissa. His son was named Abbimanyū; his again Chandihara; and from the latter descended Udyotaka Kesari, whose mother, Kolavati, created the temple to Siva as Brahmeswara. The date of the inscription is expressed only in terms of the reign, but, from the style of the Devanagari, it may be confidently affirmed to be later than the epoch fixed for Later Indra kesari (617 A.D.). Udyotaka Kesari must, then, be one of the thirty-two unrecorded princes who succeeded him in the Kesari line previous to the establishment of the Gangavamsa family on the Cuttack throne. The figure 3, it may be remarked, closely resembles the ancient form of this numeral; the 8 is nearly of the modern

The following is the list of names supplied by this inscription:- Janamejaya.—2. Dirgharava.—3. Apavara.—4. Vichitravira.—5. Abhimanyu. -6. Chandihara.-7. Udyotaka Kesari.-On the 3rd of the light half of Phalguna of the Samvat 18, of the victorious reign of raja Udyotaka Kesari Deva, who was most rich, king of kings, a raja of the lunar line and load of Kalinga. 'Jour. As. Soc. Beng.' October, 1837.

" 'As. Res.,' vol. xv.,' p. 265.

Ananta Kesari. 617 Lalat Indra Kesari, built the Bhuvaneswar temple, 657. Thirty-two reigns, extending 455 years. Cuttack built, 989.

GANGA-VANSA. Tribhuvana. Mala Deva. Churang, Saranga'deva, or Chor Ganga, invaded Orissa. Proli. Gangeswara deva, extended dominions. Ananga Bhim deo, ascended Gajapati throne; endowed Jagan- Rudradeva. 1174 nath; struck coin; title Rawat Rai.2

1201 Rájeswara doo.

1236 Raja Narsinh deo, built Kanarak (black pageda) 1277.

#### FIVE NARA SINKAS AND SIX BHÁNUS, CALLED THE SURAJ-VANSA RÁJAS.

1451 Kapil Indra dec, adopted by the last Bhanu, assisted Telinga Raja against Musalmans, 1457.

(Himber ? Rai of Uris, according to Ferishta.) 1471

1478 Pursottem dee, conquers Conjeveram.

Pertab Rudra deo, left thirty-two sons, all murdered by 1503

1524 Govind deo, his minister.

Pertab Chakra deo, the last of the dynasty. 1531

1539

Narsinha Jenna, deposed by Telinga Mukuak doo, (Harichandan) invaded, and sovereignty of Orissa over-thrown, by King of Bengal, 1558. 1550

1 This inscription is stated to be engraved on a slab about six or seven feet high, which is to be found close to the temple of Rudradeva at Warangal, the modern name for the ancient capital of the Telinguna rajas, called in this inscription Arunakundapura or patans. The inscription,—that is, its commencement and close, excluding the Sanskrit slokas,—is in an old dialect of mixed Telugu and Corya. It is valuable as containing the genealogy of raja Rudradeva, and as showing that the previous dynasty established at Warengal was overcome and displaced by his father, called Preli raja. The inscription gives an authentic date also for the reign of Rudradeva in Telingana, viz., 1054 Saka, corresponding with 1132 A.D., and shows this to be the raja, called in the temple annals of Jagannath, Churang or Chorgunga, who is said to have overvan Katak coming from the Karnatik, and to have founded or established the Gunga-vansa dynasty in the very year of this inscription, viz., 1054 Saka. Réja Rudradeva is mentioned as a benefactor of Jagannath, and Katak is included in the boundaries which are assigned to his dominions at that period. These are described in the inscription as extending as far as the sea to the east; the Sree are described in the inscription as extending as far as the set to the east; the See Saila? mountains to the south; as far in another direction, which must be west, as Bâkataka; while to the north his rule extended as far as the Malyavanta, now perhaps the Malyagiri, mountain, west of Baleswar.—1. Tribhuvana, a great warrior, of the Kâkalya race.—2. Mala Deva, 'chief of the Kâkalya rajaa.'—3. Proli raja, the son of Mala Deva, reduces Govind raja, king of Tailapa? gives back his kingdom to the king of Erha; a conquera and brands the founder of Nadha? in Mantra-kuttagar, and because the Erha raja declines to join in the expedition, expels him afterwards from his rāj.—4. Rudradeva. Ascendancy gained by Bhima rāja (half-brother of Rudradeva), consequent upon the death of the Gokurna rāja, the Chorhādaya rāja, and the king of Tuilapa; inflated with these successes, he ventures to defy Rudradeva. Bhima flies in terror.

Bhubaneswa (in Orissa) Inscription. 'Jour. As. Soc. Beng.,' vol. vi., p. 278. \*Aniyanka Bhima, the brother of "an excellent man," who had come to the throne through marriage with Surama, the daughter of Ahiruma.' Princep adds, 'the date of Ananga Bhima also agrees closely with what was assumed from the style of the alphabet and the Samvat 32 of the Basu-deva slab (inscription in As. Soc. Museum, vol. vi., p. 88, 'Jour. As. Sec. Beng.'). It will hence become a question whether

 The pundits say this is not Orissa, which always in the old dialects is written Oordha Des.

KHURDA BÁJAS; BHUÍ-VANSA, OR ZEMINDÁRÍ BACE. Ramchandra deo, titular Rája under Akbar.

1609 Pursottem deo. Afghan incursions.

1630 Narsinh deo.

Gangadhar deo. 1655

Balbhadder deo. 1656

1664 Mukund deo. 1692 Dirb Sinh deo.

Harikishen deo. 1715

1720 Gopinath dec.

1727 Ramchandra deo. Boundary much reduced, 1743 Birkishore deo. Mahratta depredations. 1786 Dirb Sinh deo, attached to Nagpur, 1755-6. 1798 Mukund Deo, deposed by the English, 1804.

## TABLE XXXV.—Rajas of Noval.

The mythology of Nepal commences, like that of Kashmir, with the desiccation of the valley, for ages full of water, by a Muni called Naimuni) whence the name of the country Naipāla), whose descendants awayed the sceptre for near 500 years,-Kirkpatrick's 'Nipal.'

B.C.	3803	Bhurimahágah (adjusted back at 18 years per reign, B.c. 844?)	в.с. 3423	Jayagupta II., overcome by Rajputs of the Tersi, near Janakpur, p.c. 700?
	3795 3722	Jayagupta. Permagupta,	3211	Bal Sinha, descendant of Mahipa Gopala.
	3631	Sri Harkh.	3302	Java Sinhs.
	3564	Bhimagupta,	3281	Bhuwani Sinha, overcome by
	3526	Munigupta.	= (	the
	3489	Bishengupta.	- 1	

#### KERRÁT TRIBE OF HASTERN MOUNTAINEERS.

3240	Yellang, adjusted date, n.c.	2949	Srupast.
3150	Daskham.		Jety dastri.
3113	Baláncha.	2794	Panchem.
3081	Kingli.	2723	King-king-king.
3040	Henanter.	2667	Súnand,
2990	Tuskhah.	2627	Thúmú.

these figures are, in all cases, to be referred to a Cuttack era, or whether the same

these figures are, in all cases, to be referred to a Cuttack era, or whether the same Devanágarí alphabet was in use from Shekawáti to Benares, Dinajpur, and Orissa, in the 12th century, while each prince had then an era of his own.' 'Jour. As. Soc. Beng.,' vol. vi., p. 280.']

[The fellow inscription alluded to is to the following effect:—]

This inscription is without date; but the form of the letters and the names of persons mentioned will probably render the fixing of its age an easy matter to those conversant with such subjects. It was composed by a pandit named Sri Vachaspati, in praise of a brahman of rank and learning, styled Bhava-deva, and his family, and it would amount that the slab on which it is remarked. family; and it would appear that the slab on which it is engraved must have been affixed to some temple of which Bhava-deva was the founder. The individuals of this family, whose names are given, are—1. Savarna Muni, the root of the gotra or line.—2. Bhava-deva 1st, a descendant of the above, whose elder and younger brothers were Maha-deva and Attahasa.—3. Rathanga, son of the above, who had seven younger brothers.—4. Atyanga, son of the above.—5. Budha, son of the above, surnamed Sphurita.—6. Adi-deva, son of the above.—7. Govardhana, son of the above, whose mother's name was Devaki.—8 Bhava-deva 2nd, son of the above, surnamed Bala-valabhi-bhujanga, whose mother's name was Sangoka, and who was minister to Raja Harivarma-deva and his son,

2558	Jaigri.	2065	Teshú.
2498		2019	
	Suenkeh.		
2365		1950	and the second s
		1887	
2294		1813	Kimbhum.
2211	7.2.00	1739	Galijang, displaced by Khetris
2138	The same of the sa		of the
	Kashkún.		
	SURYA-VAN	SA BACE.	
1658	Nevesit (adjusted date of con-	724	Vasu datta verma.
	quest, n.c. 178).	691	Sřipatri.
1608	Matta Ratio.	688	Siva vriddi.
1517	Kaikvarma.	611	Vasanta deva.
1441	Pasupush deva (founded Pas-	650	Deva.
	pstnath).	493	
1385	Bhoskar varma, a great con-	436	Sankara deva.
	queror.	386	Brahma deva.
1311	Bhumi yarma		
1270		335	Man deva, erected Sambhu-
	Chandra varma.		nath mundil.
1249	Jaya varma.	297	Mahe deva.
1187	Vrisha varma.	247	Vasanta deva.
1130	Sarva varma.	190	Udaya deva.
1081		143	Man deva, II., three years'
1025	Jist (Jayertha) varma.	James	drought.
977	Kuber (Kuvera) varma.	98	Sukam.
901	Hari varma.	48	Siva deva.
824	Siddhi varma.	130 6	Narendra deva.
763	The state of the s	A.D. 27	Bhima deva, varma, displaced by the
	AHIBS, OR ORIGIN	AL SOVERS	IIGNS.
43			1850000
200	Bishen gupta.	178	Bhumi gupta, expelled by
***	Krishņa gupta.	العد الأ	
	THE NEVERIT DYN	ASTY, REST	TORED.
218	Siva deva varma (adjusted)	773	Soho deva.
	date, A.D. 470).	807	Vikrama deva.
259		808	Narendra deva.
301	Kirtu varma.	810	Ganakama deva. •
319	Bhima Arjuna deva.	895	Udaya deva.
358	Nanda deva.	901	Narbhay deva.
371	Siva deva.	908	Bhei dom bhadas
387	Narendra deva.		
424	Bala deva.	917	Lakshmi kam deva datta,
		938	The state of the s
441	Sankara dova.	958	Udaya deva.
453		966	Bala deva.
469		977	
488	Sri bala deva.	984	Nag Arjuna.
504		987	Sankar deva.
531		1004	
574	Bala deva, III.	1006	
585	Balanjun deva.	1022	
622	Raghaba deva (adjusted date,	1050	
	A.D. 8801).	1062	Man down
985	Sikar deva.		
200	MARKE GOVER,	1067	Narendra deva.

<sup>&</sup>lt;sup>1</sup> This is exactly the first year of the Newar era. He, it is said, introduced the Samvat into Nepal, which may apply to this, and not to the era of Vikramaditya. (With one or two exceptions, marked \*, these reigns are of natural lengths, and require no adjustment.)

1073	Rudra deva.*	1195	Anya mall-a famine.
1153	Amrita deva (a great dearth).	1244	Obhaya mall, ditto, and earth-
1157	Súmesar deva.		quakes.
1164	Baz kam deva.	1246	Jaya deva.
1280	Anwanta mall deva. Kāsias and 1344, A.D. 1287.	Tirbut far	milies settled in Nepül, Samvat
	Jayananda deva.		
	Jaya sinha mall.		
	Jaya Raera mall, daughter marri daughter, Ráj Lachmi, succeed		
1323	Jaya deva, who was dispossessed		
1323	Hara sinha deva, Rája of Simi dominions by the Patan sovere	roun, who	was expelled from his own
	Belal Sinha, capital Bhatgaon.	•	
	Sri deva mall.		
	Nava mall.		
	Asoka mall.		
	Jestili mall.		
wir	Jait mall.		
war. 31 1600	Jaya Eksha Mall (or Jye Kus	h Mull),	divided Patan, Khatmandu,

1731 1600? Jaya Eksha Mall (or Jye Kush Mull), divided Patan, Khatmandu. Banepa, and Bhatgaon between his daughter and three sons.

	BE.	Raya Malla. Bhu Bhin malla.	Newto	27/2n	BANEFA. Ran Malla. EHATMANDU.
790-800	1669-79	Besson malla. Jaya Chakra mall. Trihoka malla? Jagat Johi malla. Jay Jeta mitra malla.	753 777 793	1632 1656 1662	Ratna malla. Jaya Prakas malla. Pratap malla. Jaya Yoga Prakas malla.
816 842	1695 1721	Bhupati Indra malls. Raujit malla, formed siliance with Gurk- has, which ended in his subversion, and finally that of all Nephl.	816 822 836 843 845 874	1695 1701 1715 1722	Jaya Prakas malla. Bhaskara malla. Mahendra malla. Jaya Jagat Jaya malla. Jaya Yoga Prakas mall,

#### PATAN.

Newse	year.	A daughter.	Newfir yes 837	1716	Rishi nirmal deva.
775	1654	Siddhi Nara Sinha.		1722	Jaya Zughir Yoga
806	1685	Nirman Indra malla.			malla deva,
810	1689	Yoga Narendra malla.	840-42	1729-31	Jaya Vishnu malla.
816	1695	Mahipat Indra mall,	863	1742	Java Yoga Prakás
817	1696	Jaya vira mahendra.			malla deva.
827	1706	Java Indra malla deva.	870	1749-5	Java Vishnu malla
836	1715	Hridiah Narasinha,	10.00	Shift St	Agani.

GURKHALI DYNASTY, DESCENDED FROM THE UDAYAPUR RÁJPÚTS, OCCUPIED KEMAON AND NOAKO'T, FOR SIX OR EIGHT GENERATIONS, PRIOR TO CONQUEST OF REPÁL.

1690	1768	Prithinarayan Sah.
1693	1771	Pertab Sinha Sah deva.
1697	1776	Ran Behådur (Behådur Sáh regent), deposed by nobles, 1800.
1722	1800	Girwan Yudh Vikrama Sah deya.

<sup>&</sup>lt;sup>1</sup> [The dates in the Newkr cycle inserted in this table were written in by Jas. Prinsep, on the printed page of his own copy of the 'Useful Tables.']

A.S.

1726 Ran Behådur, returns from Benares, deposed and assassinated. Girvan Yudh Vikrama Såh deva, again. 1804

1727 1805

1738 1816 Rajendra Vikrama Sah deva.

The Khatmandu and Patan names, and all the dates from 1632 downwards, are confirmed by Nepalese coins in my possession, collected by Dr. Bramley,-J.P.

# Table XXXVI.—Rájas of Samangarha, or Simroun, in the Tarái, south of Nepál.

PROM KIRKPATRICK.

A.D. 844 Nana deva. Kanak deva. Narsinha deva. Rama Sinha deva. Bhad Sinha deva. Karm Sinha deva. 1323 Hara Sinha deva.

FROM HODGSON'S LIST, 'JOUR. AS. SOC." vol. iv. p. 123. Nanyupa deva, founded Simroun, A.D. 1097. Ganga deva. Nara Sinha deva. Rama Sinha deva. Sakti Sinha deva. Hara Sinha deva, compelled to aban-don his capital and take refuge in the hills, when Simroun was de-stroyed by Tughlak Shah, in 1323 a.p. See above for his connection with the Raj of Nepal.

# Table XXXVII.—Rájas of Bengal, capitals, Kanauj?—Gaur.

Abu'l Fazl enumerates three Dynastics anterior to the family of Bhupâla, which last is identified by inscriptions found at Benares, Monghir, Dinajpur, etc., viz. :-

The family of Bhugrut (Bhagiratha), Kshatriya-24 princes, reigned 2418 years.

The family of Bhojgorya, Kaith-9 princes, reigned 250 years.

The family of Udsoor (Adisur), Kaith-11 princes, reigned 714 years.

Then follows the family of Bhupal, to whose 10 reigns 689 years are allotted, which is evidently too much; the succession of names differs also somewhat from those of the inscriptions.

PROM ABU'L PARL, 'Ayin-i Akbari,'vol.ii.p.21. Bhopála. 1027 Dhirpála. 1050 Deopala. Bhupatipala. Dhanpatpala. Bijjenpala. Jayapala. Rajapala. Bhogpála. Jagadpála.

MONORIE PLATE. Gopála. Dhermapala. Devapala. BUDAL PLATS. Rájapála. Súrapála. Náráyanpála. BARNATH INSCRIPTION. Mahipála, Sthirapála. Vasantapāla. 1017 Kumarapala (Fer.) DINÁJPUR COPPER-PLATE. Lokapála. Dhermapala. Jayapala. Devapala. Narayanpala? (Two names illegible.) Rájapála. Vigrahapála. Mahipala, at Benares. Nayapala. 1027 Vigrahapála,

<sup>&</sup>lt;sup>1</sup> The Monghir plate, dated 23 or 123 Samvat, evidently refers to the Bhupain lynasty, and not to the Vikramaditya era, as was supposed by Wilkins.—J.P.

VAIDYA RÁJAS OF BENGAL.

1063 Sukh Sen.

1056 Belal Sen, built the town of Gaur.

1116 Lakshman Sen.

1123 Madhava Sen.

1133 Kosava Sen.

1151 Sura Sen. 1154 Narayana - Novieb.

1154 Nărăyana — Noujeb, last răja of Abu'l Fazl's list.

Lakshmana. 1200 Lakshmaniya.

(See Muhammadan dynasties).

BÁKERGANI INSCRIPTION, 11136 A.D.

Vijaya Sena.

Ballala Sena. Lakshmana Sena.

Kesava Sena.

<sup>1</sup> [ 'The purport of the whole inscription is, a grant in perpetuity to a brahman named Iswara deva sarma, of the Vatsa tribe, of the villages of Bagalé, Bettogata, and Udyamana, situated between four equally unknown places in Banga, or Bengal unless Garhaghataka be Ghoraghata in the Dinappur, or Vikramapur, the place of that name in the Decca district. The mention of tanks of fresh water, with houses built on the raised banks for protection against inundation,—of the neighbouring jangal in the west, and of the saline soils, is in favour of the locality being in the Båkerganj district itself, on the edge of the Sundarbans, where sea salt is still manufactured. Probably the Chanda Bhanda tribe, made over as property along with the soil, may have been the poor class named from this tract (quasi Sandabanda, as, indeed, it is generally pronounced) employed in the salt works, and, like the modern indeed, it is generally pronounced) employed in the salt works, and, like the modern Molangis, only a step or two removed from slavery. Regarding the Vaidya dynasty of Bengul (so called from its founder being of the medical enste), there is the same uncertainty as in almost all other portions of Indian history. Some make Adisur the progenitor: he who is stated to have applied to the reigning king of Kanauj, Kanyakubja, for a supply of brahmans for the Bengal provinces; but the entalogues recorded, on good authority, in the 'Ayin-i Akbari,' place the whole of the Bhupala dynasty, extending to 698 years, between Adisur and Sakh Sena, the father of Ballala Sena, who built the fort of Gaur. No mention of either of these parties is made in the present inscription, but on the contrary, the father of Ballala Sena is distinctly stated to be Vijaya Sena; and as this is, I believe, the first copper-plate record of a grant by the family, we should give it the preference to books or tradirecord of a grant by the family, we should give it the preference to books or tradi-tions, on a point of history so near its own time: for Kesava Sena is but the fourth in descent from Vijaya on the plate; or the fifth, if we take Abu'l Fazl's list. It is curious that wherever the name of Kesava Sena occurs on the plate there are marks of an erasure; as if the grant had been prepared during the reign of Madhava Sena, and, on his dying before it was completed (for such a plate must have taken a long time to engrave), the name of his successor, Keşava, fortunately happening to be of the same prosodial quantity, was ingeniously substituted, and metato necessar, the endowment was completed and promulgated. Keşava must have been in this case the brother of Madhava. Little of the historical occurrences of Keşava's reign are to be gathered from the inflated sulogistic style common to this species of composition. It is said, in general terms, that he kept his enemies in awe, that he was religious and bountiful to the priesthood. The title of Sankara Gauresware, applied to all the members of the family, may mean either the auspicious family of the city of Gaur, or it may convey a sly hint, by the substitution of new for the miraculous descent of Ballala Sena, as before remarked; but he is said to have worshipped S'iva for many hundred years (in former generations) to obtain so famous a son as Lakshmana Sena, —who seems to have been the hero of the family,—erecting pillars of victory and altars at Benares, Allahabad, and Jagannatha. It may, however, be reasonably doubted whether these monuments of his greatness ever existed elsewhere than in the poet's imagination. The date of the grant is very clearly written in the lowermost line सं 3 की शदिन samuat 3 jywistha dine ... but the rest is not legible. The third year doubtless refers to the reign of Kesava Sena, which brings the age of the plate to the year 1136 of our era.']

# Table XXXVIII. - Rajas of Assam - anciently Kamrup.

The best authority is a Native History ('Assam Buranji') by Huliram Dhaikiyal Phukan, of Gobati. Bengal, era 1236. 'As Jour.,' 1830, p. 297; also Mr. Scott's MS. Notes, arranged by Dr. McCosh.-Buchanan is not to be trusted prior to Rudra Sinha. [Terpur inscription, 'Jour, As. Soc. Beng.' vol. ix., p. 766.]

After bringing down the genealogies to the Kshatriya dynasty of Dravir (Dharmankla, etc., who invited brahmans from Gaur to his court, north of the Brahmaputra!)

#### BRÁHMAPUTBA DYNASTY, 240 THARS.

Shusanku, or Arimatu, built fort of Vidyagarh.

Phainguya, an usurper of the race of Kumuteshwar.

Gujanke, former line restored.

Shukaranku.

Mriganku, without issue; died A.D. 1478.

Assam divided into 12 petty states.

- invaded by Dulal Ghazi, son of Hosnin Shah. 1498

Musundár Ghází.

Sultan Ghiasuddin; after whom 12 states restored, of which Nara, east of Saumar, had been gradually rising into power since the middle of the 13th century.

#### INDRATANSA (INDU) DYNASTY.

- Chu-kapha, became independent, and spread conquests, surnamed Asama 1230 ? (unequalled), whence Assam.
- Chu-toupha, son, defeated the Raja of Cachar. 1268

1281 Chu-benpha.

1293 Chu-kangpha.

1332 Chu-khampha; valley invaded by Muhammad Shah, 1337.

1364-9 Interregnum of five years; when the ministers installed

1389

Chu-taopha, a relation, conquered Chhutiyas. Chu-khamethepa, a tyrant, killed by his ministers. 1372

Interregnum of nine years. 1405-14

Chu-dangpha, conquered as far as the river Kurutoya. 1414

- Chu-jangpha, his son 1425
- 1440 Chu-phukpha, ditto.
- 1458
- Chu-singpha, ditto. Chu-hangpha, ditto.
- 1485
- Chu-simpha, a tyrant, put to death. 1491
- Interregnum, and Hosain Shah's invasion, 1498. 1497
- 1506 Chu-humpha, a brother, various conquests.
- 1549 Chu-klunpha, his son, built Gurgram.
- 1563 Chu-khrunpha.
- 1615 Chu-chainpha; introduced reforms; protected Dharmanarain.

Chu-rúmpha, a tyrant, dethroned. Chu-chinpha. 1640

1643

1647 Kuku-raikhoya Gohani, dethroned for his brother.

- Chukum, or Jayadhwaja Sinha, adopted Hindu faith; defeated Aurangzib's 1665 ? general?
- Chakradhwaja (or Brija) Sinha, built fort of Gohati; (Samagrya deva, 1621\* Mo. C); repulsed Aurangzib's general? called Chukum?
- 1665 Kodayaditya Sinha, attempted to convert the people.

1677 Parbattia Kunria.

- Loraraja, for some reigns confusion prevailed until 1681
- 1683\* Gadadhara Sinha; his son Kana set aside.

A.S. 1570, A.D. 1648—Swerganardyan, also called Pratapa Sinh, the Hindu name of Chusingpha—(Jenkins); he was of the Dehingia family, who took the name of Narain; the other branch, Toughonent, took the title of Sinhs.—J. P.

1689-17	3º Rudra Sinha, built Rangpur and Jorhat; his coins first bear Bengali inscriptions.
1715 01	Siva Sinha, established Hindu festivals.
1723-26	
1729-30	
1732-36	
1738-43	
1744*	Pramatha Sinha, made equitable land settlement.
1751*	Rujeswara Sinha, embellished Rangpur, allied with Manipur.
1771*	Lakshmi Sinha Narendra, younger son, raised and deposed by minister.
1779*	Gaurinatha Sinha, his son.
1792	Bharata Sinha Mahamari, conquers Rangpur, and
1793*	Sarvananda Sinha, usurps power at Baingmara.
1796*	Bharata Sinha again attempts, but is killed.
	Gourinatha Sinha, restored by British; died at Jorhat.
1808*	Kamaleswara Sinha, or Kinnaram, not crowned.
	Raja Chandrakanta Sinha Narendra, fled to Ava.
	Purandhar Sinha, great grandson of Rajeswara Sinha, expelled by Burmese, and
	Chandrakanta, restored, but deposed again, and
	Yogeswar Sinha, raised by Assamese wife of an Ava monarch, under
	Menghi Maha Theluah, the Burmese general and real governor.
1824	Burmese expelled by English.
	0-0 <del>0 M</del> 2002-
1712*	Date of Manipuri square coins.
1763*	Persian coins of Raja Mir Sinh of Rangpur.
1780*	Bengali coins of Jayantea Raja.

# Table XXXIX.—Rájas of Manipur, Miethie, or Mogli. From the Michouba or royal genealogical roll, Capt. Pemberton's MS.

A.D.	742004. 1	care.	A.D.		eare.
35 ?	Pakhungba, reigned	140	1200	Thawalthaba	36
174	Khoi	90	1236	Chingtanglalthaba	11
264	Tanuthingmang	100	1247	Thing baisel homba	5
364	Koening gualba	15	1252	Puralthaba	16
379	Pensiba	15	1268	Khumomba	15
394	Kanu khangba	15	1283	Moeramba	24
411	Nanu khamba	47	1307	Thangbilalthaba	22
428	Nanu phamba	90	1329	Kongyamba	31
518	Samuerang	50	1360	Telhueba	19
568	Kol Thuoba	90	1399	Laizelba	5
663	Nanuthinghong	100	1409	Púlseba	24
763	Khongtekcha	10	1437	Ninthoukhombo, reigned	35
784	Kaereleha	15	1472	Keyamba	40
799	Yaraba	22	1512	Koeremba	δ
821	Ayangba		1517	Lamchaigmanba	3
910	Ningloucheng	39	1520	Nongyilphuba	9
949	Eipal lal Thaba	24	1529	Kapomba	17
973	Yanglao kai phamba	8	1546	Tangehomba	4
981	Eerengba	89	1550	Chullamba	17
1070	Laiyamba	56	1567	Mungyamba	35
1126	Leitongba	30	1602	Khakemba	65
1156	Monyoirelba	14	1657	Khulchouba	14
1170	Eiwalthaba	30	1671	Paikhombs	31

These dates are confirmed by coins in Marsden's Num. Or. and others in Captain Jenkins' collection.

### MAHARAJAS OF MADURA.

A.D.	Years.	1 4.0		enrs.
1702	Charáirongba 12		Gourse Sham	1
1714	Pamhaiba-Gharibnawaz, or	1767	Java Sinha	31
	Garmani Raja, or Myang-	1798	Robin chandra	3
	guumba 39	1801	Modu chandra	- 5
1753	Khakhilalthaba, or Oogat	1806	Charjit Sinha	6
	Sháh 3	1812	Marjit Sinha, expelled by	
1756	Mingthoèkhomba — Bharat		Barmas, 1819.	
	Shiah 2	1824	Gambhir Sinha, brother, re-	
1758	Gouri Shām-Maramba 6	1000	gained possession.	
1764	Chingthangkhomba, or Jaya	1834	Kirti Sinha, a minor, son of	
	Sinha, Nongnangkhomba 2	1	ditto,	

Table XL.—The Narapati, or Sholan Dynasty of Karnátá, Dravira, and the southern portion of the Peninsula. Twenty-seven Rájas, reigned 534 years.

(Contemporary with the Gajapati and Asvapati Dynasties; from a MS. translated by Buchanan.)

266 ?	Utinga Sholan, reigned Culatunga Sholan	32 18	Arleana Cadamai Canda Sho-	62
	Rajendra Sholan	11	Jayam Canda Sholan	12
	Tiramadi Canda Sholan	13	Kirimi Canda Sholan	20
	Carical Sholan	21	Tondaman Sholan	12
	Arundavan Sholan	13	Buddam Cattam Sholan	4.5
	Vomyara Sholan		Shomuman Sholan	11
	Shayangana Sholan	15	Ghingui Canda Sholan	11
	Munalinda Sholan	12	Sundra Pandia Sholan	40
	Mavanedi Canda Shelan	15	Pottapa Sholan	24
	Vakula Sholan	14	Shingu Vullanda Sholan	14
	Alaperinda Sholan	8	Deva Sholan,	10
	Tiraveratu Sholan	15	Shayanahatti Sholan	15
			Vira Sholan	30
	And the second second second second			200

800? Shayangara Sholan, 24 years; the MS. makes the final date A.D. 288. After the overthrow of the Narapati dynasty, Karnata and Dravira seem to have been separated from the southern districts, in which the Chera, Chola, and Pandava lines were at first united under one sovereignty.

THIRTEEN MARÁ RÁJAS OF NÁDURA, TANJORE, AND COMBETORE, REIGNED
239 YEARS.

	Years.	A.D.	100000 NO. 1000 NO. 1	ears
Udismars, reigned	. 18		Srí Devanátha, reigned	38
Jeva deva	. 19		Malik Arjana	7
Lohita 1	10		Adi Raer	13
Ganga dira	11		Maha sustra	16
Vama deva			Visuvesvara	8
Terupulinda	. 34	950?	Chindrabuti	9
Pattaviran	43			

After which follow the Belal Rajas of the Karnata, and the petty Polygér dynasties of Maduru, etc.

During this dynasty the palace of Madura is supposed to have been erected.

# Table XLI.—Belál Rájas of the Karnáta. Capital, Dwárasamudra.

Nine Princes governed above the Ghats 98 years, and afterwards below the Ghats 111 years.'-(Buchanan, 'Mysore,' vol. iii. p. 112.)

	MACKENZIE'S MS.	1	BUCHANAN, VOL. III. P. 474.	
984 1043 1073 1114	Vishnu Verddhana Belåla.	A.D.	Rája Belála Ráya, reigned Vira B. R. Chinna B. R.	22
1145 1188 1233 1249 1268	Vijaya Narasinha Belāla. Vira Belāla. Vira Narasinha deva. Vira Someswara. Vira Narasinha, taken by the Muhammadans, and his capital destroyed in 1310-11.	1016	Vishna verti B. R. Hari B. R. Imadi B. R. Visia B. R. Buca B. R. China Buca B. R.	19 17 16

#### TABLE A.

Mr. Walter Elliot, of the Madras Civil Service, some years ago (1836) contributed to the 'Jour. Roy. As. Soc.' an elaborate résumé of a series of no less than 595 Hindú inscriptions, collected chiefly in the Southern Mahratta country, or the district of Dharwa; in the western part of the Nizam's territories; in Mysore, the Mangalore collectorate, etc. In due preface to his table of results derived from these especially authentic documents, I prefix an outline of his supplementary remarks which more properly form an introduction to the inscribed genealogies of the leading race :-- ]

'This [the Chalukya] is the oldest race of which we find satisfactory mention made in the records of the Dekkan; they seem to have belonged to the great tribe that, under the general name of Rajputs, exercised dominion over the whole of the Northern and Central India. . . . . The names anterior to Teilapa deva (Saka 895) are given on the faith of two inscriptions, which profess to be taken from older inscriptions on copper-plates then extant,' supported by confirmatory evidence of a like nature. 'From these authorities we learn that Jaya Sinha claims to be descended from ancestors previously enjoying royal power, of whom 59 reigned in Ayodyapura and other places in the North, or in Hindustan. . . . . 16 are then described as reigning after him in the Dekkan. . . . but previous to them, two other families or races had possessed it, the Kartos and the Rattas, the latter of whom were overthrown by Jaya Sinha, who defeated and destroyed Krishna, the Ratta Raja."

- 1. Jaya Sinha.
- Raja Sinha, Rana Ragaha,
   Pulakesi (Saka 411).<sup>2</sup>
- 4. Kirtthivarma.
- 5. Mangalisa.
- 6. Satya Sri (eventually a family designation) son of No. 4, Saka 488.
- Amara.

- Aditya varma.
   Vikramāditya (accession Sāka 516).
   Vinayāditya, Yudha Malla.
   Vijayāditya (accession Sāka 617).
   Vikramāditya (accession Sāka 655).<sup>2</sup>

<sup>1 (1)</sup> At Ye-ur, in the Nizam's Territory, No. 4 of Vikram. II. (2) At Handarki in Tondur, No. 141 of Vikram II.

Ree also 'Bombay Jour,' ii. 6; Pulakesi's father is also entitled Kirti Varma.

Ree also Major Le-Grand Jacob's grant of this monarch, dated S. 627 (A.D. 706).

"No records have been obtained of any of the succeeding names in the list, till the time of Teila."

Reverting to the original text, Mr. Elliot is found introducing his more especial series of documents in the following words :--

The inscriptions so arranged are found to relate to four dynasties of princes, reigning over the greater portion of that part of India now denominated the Dakshana, or Dekkan, but at that time Kuntala-desa. The capital was first Kalyan (in the Muhammadan province of Kalbarga), and subsequently Devagiri, now the modern city of Dowlutabad. The limits of this kingdom appear to have been the Nermada on the N.; the ocean on the W.; the line formed by the Kanarese language on the S.E.; and on the S.W. they would include the provinces of Nuggar or Bidnur, and of Sunda. . . . The eastern boundary I have not been able to ascertain, but it is probable that it did not extend beyond the Ghats, under which lay the kingdoms of Kalinga and Andhra.

#### I .- CHALUKYA DYNASTY.

	Name.	Titie.	Accession 84km.
1.	Teilapa deva	***************************************	895
2.	Satya Sri, or Irivi Bhujanga dava		919
3,	Vikramaditya I. or Vibhu Vikram	47*************************************	930 ?
4.	Jaya Sinha deva	Jagadeka Malla	940 ?
5.	Someswara deva L	Treilokya Malla	962?
6.	Someswara deva II. or Soyi or Sovi-deva Vikramāditya II. or Kali Vikram or Permadi	Bhuneka Malla	991?
	raya	Tribhuvana Malla	998
8.	Someswara deva III.	Bhuloka Malla	1049
9.		Jagadeka Malla	1060
10,	Teilapa deva II. or Nurmadi Teilap	Treilokya Malla	1072
11.	Someswara deva IV.	Tribhuvana Malla	1104
	II KALABBURJA OR KALACH	UNA DYNASTY.	
12.	Vijala deva or Bijala	Tribhuvana Malla	1078
	wara deva	Bhuneka Malla	1087
14.	Sankama deva	Abawa Malla	1098
	IIITADAYA DYNASTY OF DW	ARA SAMUDEA.	
15.	Vira Bellala		1113
16.	Nara simha		1
	IV YADAVA DYNASTY OF	DEVAGIRI.	
17.	1. Ballam deva	***************************************	1110
18,	2. Jayatuga deva	Jytpál dev	1115
19.	3. Simhana deva	of the act in the second	1132
20.	4. Kandarae deva or Kanera deva	***************************************	1170
21,	5. Mahá deva		1182
22.	6. Ramachandra	***************************************	1193
23.	7. Shankar deva		1232
	our. Roy. As. Soc.', vol. iv. p. 4,		

Bombay Jour.' iii. 203. The genealogy of the family is here somewhat differently stated: 3. Pulakesi; 4. Kirthivarma; 5. Satyasraya; 5. Chandraditya; 9. Vikramaditya (brother of 5); 10. Vinayaditya; 11. Vijayaditya; 12. Vikramaditya.

The Kharepatan inscription ('Bombay Jour.' i. 209) describes Satya Sri as reigning in the Saka year 930 (A.D. 1998). See also Major G. Le-Grand Jacob's Copper-plate Charters ('Bombay Jour.' iv. 97) dated S. 865 (A.D. 933).

#### TABLE B.

I also annex Mr. Wathen's summary of the Chalukya dynasty of the South, the materials for which have also been derived from the authentic sources of inscribed copper-plate grants of land, etc. :-

THE CHÂLUKYA DYNASTY OF THE SOUTH (CAPITAL, DHÂTAPIPURA).

1. Jayasinha Vallabha i. Jagadekmalla, (Saka 371 ? A.D. 450) 're-establishes' the Chalukya kingdom.

- Rana-raga (Sáka 391? A.D. 470).
   Pulakesi, Satyairaya (Inscription Jour. Roy. As. Soc. vol. v. p. 434) (Sáka 411, A.D. 490).
   Kúti-varma (conquered Naldroog or
- Beder) 'conquest over the Maurya and Kadamba princes."
- Mangalisa, Satyderaya.

Neramari.

- 7. Aditya varma.
- 8. Vikramaditya I. 9. Yódha-malla.
- Vijayāditya.
- 11. Vikrumāditya II.
- Küti-varma II.
   Taila-bhúpatí (Revolutions, etc.).
   Bhíma,

- 15. Kúti-varma III.
- Apánáya (restores Chálukya power).
   Vikramáditya III. Satydorogo.

- 18. Taila-bhúpa II. (conquers 'Ráshtrakúta Rájas of Ranastambha (Chandail, in Berar) and Karkara").
- 19. Satyásraya.
- 20. Jayasinha II. (?)
- 21. Dasa-varma.

22. Jagudeka Malia. (?)

23. Jayasinha III. entitled Sri-Prithivi, Vallabha Mahardjadhiraja, Paramesvora, Parama-bhatáraka, Satydersys, etc., conquers Panchadrumila-nagara, the capital of the Chola king, and seizes the do-minions of the seven Rajas of the Konkana. - Inscription dated Saka 946, A.D. 1025 ('Jour. Roy. As. Soc.' vol fi. 380).2

Mr. Wathen's other grants may be briefly recapitulated as follows:

- Sáka 894, A.D. 973. Kakka or Kakkala rája entitled Amogha-varsha; enpital Mankhera in the Hyderabad country. See also Bombay Jour. vol. i. p. 211, grant dated Saka 930.
- and 4. Sákn 948 and 980.3 Silára, Silyára, or Siláhára family present a series of eight or nine princes commencing with Kapard (sires 900) who claim to rule over the Konkan.
  - Sáka 1102. Sri Mata-Aparáditya-Rája, Konkana.
  - Sáka 1127. Five local Sílára rájas enumerated.
  - 8. Sáka 1182. Grant by a minister of a king of the Châlukya race.
- 9. 10. Saka 1212 and 1194. Yadava family, under Rama Chandra Deva of Deváravati.

Table XLII.—Adeva Rájas of Tuluva, Andhra, or Telingána. Capital Woragalli or Warancal.

Nineteen Adeva Rajas reigned 370 years (211 years?) supposed to be the eighteen princes of Andhra descent, prior to Pratapa Rudra.4

Tribhuvana Malla Raja, of Warangolla.

Poli Rája hís son. A.S. A.D.

Pratapa rudra built a temple. 1084. 1162 East boundary the seashore; Sri Saila hills (South of Hydrabad); West, Vakataka country; North, Mountains N. of Godavery.—J.P.

<sup>1</sup> [See grant of Govinda Rája Ráshtra-kúta, dated Sáka 730, a.D. 808. 'Jour. Roy. As. Sec.' vol. v. p. 350, and the still carlier document of Danti Durga, Sáka 675, A.D. 753.]

2 [See also Mackenzie collection, introduction, exv.]

3 [Also Sáka 939 : 'As. Res.' vol. i ; and Sáka 1113 : 'Trans. Lit. See. Bombay,'

4 Sásanam from a temple at Warangell.

vol. iii.]

4.5.	100 E E E E E E E E E E E E E E E E E	ears.	St. 1995 States	Years.
800 ?	Sri Ranga A.R. reigned	25	Narasinha A. R	. 8
	Vira Narayana A. R	23	Duia A. R	
	Wobala, A. R	21	Sri Pandia A. R	9
	Siruvayanagada A. R	22	Vasu deva A. R	
	Pirungei Endia A. R	15	Siric Virindi A. R	
	Canda Gopála A. R	32	Cutia deva A. R	
	Narasinha A. R	13	Rāja visis Bujinga	12
	Cambuli A. R	15	Salica Narayana A.R	
	Bacan A. R	22	Prithivadi Hacukera Sadicun	87
	Vira Narasinha A. R	12		
1167	Uricandi Pratapa Rudra, 58 or	54, en	ded 1221.	
	Anna Pemma 77 80	pposed	subsequent to Mahratta subjection.	

The Micchhas (Muhammadans) followed, and Pratapa Rudra; whose officers, Hueca and Bucca, raised the Vijyanagar dynasty; the list of which, in Buchanan, vol. iii, p. 476, differs essentially from that given by inscriptions.

## Table XLIII .- Rajas of Chola (Chola-mandeloor, Coromandel).

(Including the country now called the Karnatic below the Ghats, hod Tanjore. Capitals, in Ptolemy's time, Arcot; then Wariur, near Trichinopoly; next, Kumbhahona, and lastly, Tanjore.)—Wilson's Mackeuzie MSS.<sup>1</sup>

27012	Chall (2)	V201100
700-1000	Kulottungå—others say 3000 B.C. or 500 A.D., or 1200 A.D.; built temple at Tanga- pur, or Tanjore. Deva Chola. Sasisekhara.	Kanaka. Sundara, killed a Brahman. Kalakala. Kalyana. Bhadra.
918?	Siva linga. Vira chola.	1407? Pattira Chola? last according to some accounts. Kulottunga Chola – last according
1100?	Keri kaln, persecutor of Ra- manuja, Bhima.	to others, married his daughter to 48th Pandyan prince, who succeeded
886 ?	Rájarájendra, subdued various countries. Vira mártanda. Kirttivardhana. Vijaya.	An illegitimate son (Nanda?) founded the Tonda Mandalam (Conjeveram)—also annexed to Pandya kingdom.

## Table XLIV.—Rájas of Chera or Konga (comprehending Salem and Coimbetore.)

'The Kongadesa Raja kal enumerates twenty-six princes.'—Mackenzie's MSS.

Vira raya. Madhava vermā. Govinda raya. Hari varma, Krishna raya. Vishpugopa, Kalivallabha. Krishoa varma. Dindikara. Govinda II. Chaturbhuja. Durvaniti. Kumara deva. Pushkara. Trivikrama deva. Trivikrama. Bhdvikrama. Kongani verma.

<sup>1</sup> Wilson, 'Jour. Roy. As, Soc.', vol. iii. p. 119; Dowson, ibid, vol. viii. p. 1.

Kongani Mahádhirája. Govinda III. Sivaga. Prithivi Kongani Mahádhiráya. Rája deva.

Malla deva.
Ganda deva.
A.D. Satya vrākya deva.
Sauttama deva, subdued by the

Chola Rája, from whose descendants it possed to the Belál Rájas of Maisur, and thence to the Vijayanagur dominion.

#### BARODA TAMBA-PATRA.

Dated Sáka 734 — S12 a.D. 'Jour. As. Soc. Beng.,' vol. viii., p. 292. (Láteswara¹ kingdom; capital, Elspur.)

Govinda Rája.
 Karka.

5 Govinda II. 6 Indra.

3 Krishoa.
4 Dhruya.

7 Karka.]

## Table XLV.—Pandyan Dynasty of Madura.

Tradition ascribes seventy-four princes, of whom thirty-nine names are extant.

Kulottunga, 2000 n.c.? Anantaguna. Kalabhūshana. Răjendra Pandya. Rajeswara. Gambhira. Vansapradipaka. Puruhutajit. Pandya Vamsapataka. Sundareswara. Padasekhara. Varaguna, united Chola Tonda to Madura. and Răiendra. Suguna, Chitraratha. Chitrabhushana. Chitra dhyaja. Chitra verma. Chitrasens. Chitravikrama.

Udanta. Rája Charámani. Rája Sárdula. Kulottunga. Yodhana pravira. Raja Kunjara. Raja Bhayankara. Ugyasema. Mahasena. Satrunjaya. Bhimaratha. Bhimaparakrama, Pratapa Martanda. Vikrama Kunjaka, Yuddha Kolahala. Atula Vikrama. Atula Kirtti. Kirttivibhūshana. Vamsasekhara, founded the Madura College, Vamsachuramani.

Nayak Dynasty—founded by Nagama Nayak, an officer of Krishna Raya of Vijayanagar, fourteen princes.

1530 Viswanath.
Krishnapa.
Virapa.
Visvapa.
Kusara Krishnapa.
Kasturi Ranjapa.
Mutu Krishnapa.
Virapa; died 1623.
1623 Terumala, or, Trimal, 1663.
Muta virapa.

Chokanath; died 1687. Krishna mutu Virapa.

1687 Krishna mutu Virapa, 1695 Vijaya ranga, under regency of Mangamal.

1731 Vijaya Kumara, do. of Minakshi rana. Fort seized by Muhamedans, and Madura became tributary to Nuwah of Carnetic, and afterwards to the British.

<sup>&</sup>lt;sup>1</sup> Supposed to be Kongudes by Mr. H. T. Prinsep. See also Wilson's Mackenzie MS., p. 198.

# TABLE XLVI.—Rájas of Vijayanagar.

From history, inscriptions, and family genealogy, (see 'As. Res.', vol. xx.) The latter authority, in the usual manner, deduces a direct line from Pandu, of the lunar dynasty, imperfectly following the Paursoic lists to Chandrabija, the last of the Magadha rajas; to whom succeeds,

a.n. Marru, Nanda. Bhutanandi. Nandili, who has two sons, Seshunandi and Yeshanandi, whose fourteen sons, ruling over Bylemdesh, are dispersed by two invaders, Amitra and Durmitra; and seven fled to Andhradesa, or Telingana, where 1034 Nanda, maharája, erected a kingdom, and founded Nandapur and Warangol. 1076 Chalik Raja. 1118 Vijaya Raja; founded Vijayanagar. 1158 Vimala rao. 1182 Narasinha deva. 1249 Rama deva. 1274 Bhupa raya, died without issue. 1334 Bukka, son of a neighbouring Raja, raised to the throne of the Dakhan by Vidyaranya, his gúrú. 1367 Havihara rao. 1391 Deva rao. -1414 Vijaya rao. 1424 Pundara deva rao, deposed by Sri Ranga Rája of Kaliandrúg. 1450 Rama chandra rao, son of Sri

A.D. 1490 Vira nararasinha raja. Achyuta rao. 1524 Krishna deva; extended his sway to Gujerát, etc. Ráma Rája, killed in invasion of Nizám Sháh, and I'mád ul mulk. 1565 Sri Ranga Raja, Trimala Raja. Vira yangat pati, Sri Ranga II. Ramadeva rao. Venkatapati rao. Trimala rao. Rámadeva rao. Sri Ranga rao. Venkatapati; invaded by the Moghuls and fled to Chandra-Rama ran; recovered a portion of territory. Hari Das. 1693 1704 Chak Das, his brother. 1721 Chima Das. 1734 Ráma ráya. Gopála rao, son of Chak Dás. 1741 Yankatapati. 1756 Trimala rao. Sultan Khan took the country in the name of Tipu; and with Vira Venkatapati Rama

rays, the dynasty became ex-

tinet, A. D. 1829.

# Table XLVII.—Rajas of Maisur (Maheshwar or Mysore.)

Their genealogy is traced from the Yadu line of Chandravansa.-Mackenzic MSS.

A.D.

1530

Betta Vadiyar.

Ranga.

1473 Narasinha rao.

Chamaraja Vadiyar, son of Yadu. Timmaraja Vadiyar, son of Betta.

Hiriya Chamarasa Vadiyar, his son.

Bettatha Chamarasa Vadiyar, do., who had three sons,

1 Timmarāja Vadiyar. 2 Krishnarāja Vadiyar, 3 Bola Chamarasa Vadiyar; had two wives, Viryammā and Demayammā. 1600 ? Raja Vadiya, son of the former, took Seringapatam, 1610,

Bettada Chamarasa Vadiyar,

Devappa raja Vadiyar, sons of Demayamma.

Narasa rája Vadiyar, son of first wife of Rája Vadiyar.

Chamaraja Vadiyar, his son.

Imadi Raja Vadiyar, son of Raja Vadiyar's second wife.

1638 Kanthirao Narsa raja Vadiyar, son of Bettada, acquired great power.

[Chinrayapatan inserip. Bucar. Mysore, Doda Deva rāja Vadiyar, son of Devappa, extended dominion N.W. Chikka Deva rāja Vadiyar, his son, collected family history.

1704 Kanthirao Narsa raja Vadiyar, his son.

1713 Krishna raja Vadiyar, do. Chamaraja Vadiyar. Imadi Krishna raja, son of Krishna. Nanja raja Vadiyar, his son.

Chamaruja Vadiyar, dethroned by Hyder Ali; Mysore destroyed.

1796 Krishna raja Vadiyar, restored by the British.

## Table XLVIII—Paligar Dynasty of Trichinapali.

Terumala Raya, of Achita tribe, in Tenni-

velly, founded dynasty.

Panchakhya.

Tondaka.

Navana Choládhipa.

Terumala Nripālachandra

Navasauri.

Páchanara pála.

Namana.

Pachamahisu.

Kinkinipati.

Tondaka Nripati.

Tirumala Bhupa.

Padmapta. Raghunatha, an officer of Vijaya Raghava, of Tanjore.

Terumala raya. Sri Vijaya Raghunath, conquered Chon-

da Khan.

# Table XLIX.—Valuguti Rájas of Venkatagiri, or Kálimalé.

#### From the Mackenzie MSS.

Pătalmări vetăl.

Demansidu; aided in giving Pratápa Rudra the throne of Warangol.

Vanamusidu.

Yarudakshanaidu.

Sinha manaidu.

Madan.

Vedagiri naidu.

Kumar madan.

Sinham naidu.

Pada sinham. Chenna sinham.

Anupota; extended sway to Krishna river.

Sarva sinh.

Dharmanaidu.

Timmanaidu,

Chiti daksha.

Anupota.

Madan.

Sura.

Yachamanaid; founded Valáguti branch.

Chenna Sinh, under Vijayanagar.

Nirván ray appa.

Kumara timma naidu. Padakonda naidu.

Padakonda naidu II. Chennapa naidu.

Venkatadri naidu; whence name of place.

Rayapa.

Pennakondapa naidu.

Yachama.

A. D. Kasturi.

1600 Yacham naidu, conquered as far

as the Madura province.

Padayachem.

Kumar yachem.

Bengar yachem; murdered A.D. 1696, by Zulfikarkhan.

Kumár yachem; died 1747.

Bengar yachem, and Padayachem, 1776.

1804 Kumar yachem, adopted.

Bengar yachem; ditto.

# Table L.-Indian Dynasties, according to Ferishtah, stated to be taken from Persian and Sansorit authorities.

The subjoined list seems to have been compiled by Prinsep from Dow's translation of Ferishtah ('History of Hindústán,' London, 1812), whose work, often most meritoriously exact in its rendering of the original, is at times quaintly interpolated with observations, which, though appearing by the context as Ferishtah's, are in effect not to be found in his proper Persian version : under this category may be classed the dates pertaining to the ante-Muhammadan section of the Table under review. Dow's translation of this portion of the entire history labours under the additional disadvantage of having been based upon manifestly imperfect MSS., which are now susceptible of correction and amplification from the excellent lithographed copy of the Persian text published at Bombay. I have introduced a few emendations and additions from that source; but in the process of the examination necessary to this end. I have been led to form a somewhat unfavourable impression of Ferishtah's knowledge, and his power or will to sift and elucidate the traditions he inserts regarding the early dynastics of India. I am fully prepared, however, to admit that there is much curious matter to be found in his introductory chapter, which, if we could but rely upon our authority or trace up his sources of knowledge. would be well worth the deliberate scrutiny of orientalists. I intentionally abstain from entering more fully into this subject, as I am aware that the late Sir H. M. Elliot has devoted much time and attention to the illustration of this fragmentary preface; and I trust that his observations on its merits may shortly see the light in the forthcoming posthumous edition of his works now under preparation by Mr. W. H. Morley.

(This list is useful for comparison with those already inserted.)

Maháráj; descended from Krishna (not the fabulous Brahmanical hero, but an ordinary mundane king of Hindústán, reigning in Oudh).

Paridún; first invasion of India, Malchand reigned in Malwa.

1429 Kesvaraja, son of Maharaj, invades Ceylon and reduces the Dakhan with the aid of Munuchehr, king of Persia.

Manérraya, built Manér.

1209 Feroz-rai, son of Kesvaraja, recovers the provinces on the Indus previously ceded to Persia.

1072 Rustam of Persia establishes Scoraja dynasty at Kanauj, where worship of sun is introduced. (Dynasty survives 286 years?)

786 Baraja (36 years).
Keidar, a Brahman; tributary to Persia (19 years).
731 (died) Shunkal; built Laknauti (Gaur) in Bengal. Persian invasion under Peiranweisa, and subsequently by Afrasiab.
Rohata, son of Shunkal (dynasty reigns for 81 years after the death of Shunkal).

586 Maharaj, Kachawa Rajputs of Amber established (reigns 40 years, contemporary with Gustasp).

Keda raja. Rustam Dista, the Persian Governor of the ceded Indian pro-vinces being dead, Keda raja reduces the countries on the Indus, and fixes 540 his residence in the city of Born; driven back by the Kabul mountaineers.

Jaya chand, his general - a famine, 497

437 Dahlu, built Dihli.

Porus, of Kemnon, usurped throne of Kanauj. 397

Porus II.; resisted Alexander's invasion. 350

330

Sinsar-chand (Sandracottus).

Jona, and his line, reigned tranquilly 90 years. 260

Kalian chand, a tyrant; kingdom of Kanauj dismembered. 170

Vikramajit (died), reigned in Malwa and Gujarat; era established; anarchy 58 and confusion succeeded.

Rája Boga (Bhoja), of the Tdar tribe. A.D.

- Basdeo (Vasudeva), revived Kanauj dynasty; totemporary of Bahramgor, 330 who married his daughter.
- Ramdeo, of Rhator race, fixed in Marwar; tributary to Feroz Sassan. Civil wars, took Kanauj and Bengal, married daughter of Sivaray of Vijayanagar. 410 Pratab Chand, his general, of Sesodia tribe, refused tribute to Noshirvan.
- 500 Anand deva; reigued in Malva, built Mandô and Ramgir (stated to be contemporary of Khusrá Parviz.)

550? Maldeo; assumed throne of Dihli, and Kanauj empire divided.3

Hispal, father of

Jaipál, Rája of Láhore, invaded by Subuktigín and by Mahmúd. 977 Anandpal succeeds, defeated by Mahmud.

1009

Bachera (Vijava ray) of Bhattis, invaded by Mahmud, A.u. 393.

Prithirajpal (Jaipal II. ?) of Dihli and Labore, fled to Ajmir.

Korra (Kunwer ray — Kumurapul) king of Kanauj, surrendered to Mahmud, in whose time the country was divided into principalities. 1012 1016

Hardat, raja of Merat. Chandpal or Calchandra, raja of Mathura.

Jundray?-Nanda ray of Kalinjar, Jasuverma? raja of Ajmir. 1022

Byramdeo (Brahma deva), of Gujarat deposed; and Sumnath temple plun-1024

Dabisalimo (Saila deva) enthroned in his stead. 1025

- Daipal, governor of Sonpat, forty miles from Dihli on road to Lahor: in 1035 Sewalik, Ram ray, another chief.
- Daipal, king of Dihli, with other rajas, retake Hansi, Tanesvar, etc., from Modood Ghiznavi. 1043
- Balin, of Luhor; built Nagor in Sewalik; upset by Bairam Shah. 1118
- Pitter Rai of Ajmir, Candi (Chawand) Bai of Dihli defeated Muhammad Ghori. 1192

Hindú confederacy of 150 rajas defeated by ditto. 1193

Jay Chand, of Kanauj, defeated. Hemraj, of Ajmir, expelled Pithiray's son.

Bhimdern, of Gujarat; Goorkhas noticed, under Muhammed. Sahir deva of Narvar (Patan) defeated by Mahmud II.

1215

Udsy-sa, tributary raja of Jálwar. Rája Dewbal, of Gwalior, reduced. 1231

Dilleki and Milleki rajas, of Kalinjar. 1246

Diepal, raja of Sitnur; raised rebellion in Sind.

- <sup>1</sup> [Dow's English text says, 'The Hindoos retain such a respect for the memory of Biker-Majit, that most of them to this day reckon their time from his death, which happened in the 89th year of the Christian era, vol. i. p. 11. Ferishtah himself, in the Persian original, indicates this date as corresponding (at the time he was writing, A.н. 1015,) with the Hindú reckoning of 1663.]
  - Wilford names this king Sadápála, or Sadasvápála. 'As. Res.', vol. ix. p. 211.
  - See extracts from Albiráni, vol. i., p. 314.]

- 1291 Rája of Rintinpur besieged by Feroz. 1294 Rámdeo, rája of Deogir (Daulatábád)
- Shankaldee, his son, married Dewal devi, daughter of Ray Karan, of Nehrwala, Gujarat; his wife, Kamla devi.
- Bhima deo, rája of Rintinbhore. Hambar deo (Hamira), his son, besieged by A'lá. Koka, rája of Málwá, overcome by Ein ul mulk. Nehr Deo, of Jálwar, surrendered to ditto. 1299 1304
- 1308 Ray Ratan Sen, of Chitor, escaped from A'lá's camp.

  his nephew confirmed in that principality. Sital deo, raja of Sewana.
- Sitai deo, raja of Sewana. Laddar deo, raja of Warangol, made tributary. Bilal deo, of Karnata, resists Tughlak 1338, founds Vijayanagar. Harpal deo, son-in-law of Ram deo, flayed. 1309
- 1318
- 1340 Nag nak, Koly chief of Kondhana.-Prem Ray, of Gujarat.
- 1347 Man deo, rája of Buglana.—Krishna ray of Vijayanagar. 1389 Ray Sarvar, rayrayan, of Behar.—Vinack ray of Telingana. Narsinh Bhan of Gwalior, Rahtor chief.—Narsinh of Kehrla. 1391
- 1402 Brahma dee, son of ditte, repelled Timur at Gwalier.
- 1405 Ray Davood, and Hubboo of Toolumba.
- 1425
- Ray Bheem of Jummo.—Deva ray, of Vijayanagar. Pertab Sinh of Patiala and Kampila, 1452 Narsinh, his son. 1446
- 1452 Prithivy ray and Karan ray .- Bhim raj of Condapilly.
- Amber ray and Mangal ray of Orissa, 1470.

  Gwalior raja resisted Ledi. 1471
- 1478
- Sangat Sinh, expelled from Etawa. Siva ray of Vijayanagar.
- 1490 Man Sinh, of Gwallor, receives dress of honor.
- 1518 Vikramajit, his son, killed by Babar, 1526, and Gwalior reduced after 100 years' independence.
- Saha dee, raja of Katra. 1491
- 1493 Balbhadra ray, of Kootumba, near Chunar. Narsinh ray, his son. Salivahana, raja of Panna.
- 1501 Vinaik dee, of Dhelpoor.
- 1528 Man Sinh, raja of Gwalior.
- Rana Sanka, of Chitor (Sangrama Sinh) -- finally reduced by Akbar, 1570.
  Rawel dec of Bagur. Medny raja of Chandery. 1533 Manik chand and others killed.
- 1540 Maldeo, of Nagore and Ajmir, most powerful raja. 1542
- Harkrishna ray, of Rotas-killed by Shir Shah. 1554
- Ramchandra, raja of Panna and Kalinjar. Hemoo usurps the throne of Dihli—battle of Panipat. Ram-Sa, a descendant of Man Sinh. 1556
- Jugmul and Devi Dás, rájás of Márwár, yield to Akbar.
- 1567 Ujaya Sinha, of Udipur-Surjan ray of Rintinbhore.
- 1570 Chandra Sen, son of Maldeo of Ajmir.
- 1572 Ray Sinh, appointed to Jodhpur by Akbar.
- 1586 his daughter married to Selim Mirza,

#### Table LI.—Mahratta Governments.<sup>1</sup>

#### L-PAMILY OF SIVAJÍ, RÁJAS OF SATTARA.

- 1644 Shahji, a Subahdar of the Karnatic under Aurangzib, bestows jagirs on his sons-Tanjore on Ekoji-dies 1664.
- Sivaji, his son, commences predatory expeditions.
- 1664 - plunders Surat, and assumes title of raja.
- The origin of Sivaji is traced in the chronicles of Mcwar to Ajaya Sinh rana of Chitor, 1300 (T. I. 269), thus : Ajayasi, Sujunsi, Dulcepji, Scoji, Ehoraji, Deoraj, Oogursén, Maholji, Khailooji, Junkoji, Suttooji, Sambaji, Sivaji, Sambaji, Ramraja, usurpation of the Peshwas.

1720

Sivāji establishes a military government-dies 1680, April, Raja Ram, set up by minister - imprisoned at Raigurh. 1630 Sambhaji, assumed the sovereignty-executed at Talapur, August, 1689. Santa, usurped power-murdered 1698. 1689 Raja Ram, again proclaimed at Sattara, died 1700. Tara Bai, his wife, assumed regency—incursions into Behar.
Siváji II., son of Sambha, nicknumed Shao-ji, released on Aurangzib's death, and crowned at Sattara, March 1708—goes mad. 1700 1707 Ram Raja, nominal successor - power resting with minister or Peshwa, 17491818 Pertab Siva, or Sinh, re-instated at Sattara by British, April 11, IL-HEREDITARY PESSIWAS OF PUNA. Balaji Baji Rao, succeeds his father—dies after battle of Panipat.

Mādhuji Rao Belāl, second son, invested as nominal Peshwā, uncle Raghunāth, regent. Nana Parnavis, his karkun—dies November 1771,
Narāyan Rao, youngest son of Bālaji, murdered. 1740 1761 1772 Raghunath Rao (Ragoba), usurped. Mādhorao Narāyan, posthumous son of Narāyan (Nāna F. in power), com-1774 mitted suicide 1795. Bāji Rao, proclaims himself; is taken by Sindia, Chimnāji, furtively invested at Puna, 26th May. 1796 Baji Rao, publicly proclaimed, 4th December. - surrenders to and pensioned by the English, 3rd June. 1818 III .- BRUNSLA BAIAS OF NAGPUR. Raghūji Bhūnsla, nominated "Séna Sāhib Suba," or general in Mārhatta 1734 confederacy. received sunud of Berar from Peshwa, dies 1753. 1750 Januji, eldest son, adopted his nephew. Rnghuji, eldest son of Madhoji, removed by Madhorao in favour of 1753 1772Sabaji (his uncle), killed in action soon after by Mudaji.
Parshji, succeeded his father, Raghuji; an idiot; strangled by
Mūdaji (Appa Sāhih), acknowledged by English; deposed 1817–18. 1774 1816 May. Goozur, grandson of Raghuji, seated on musnud by ditto. 1818 IV .- THE SINDIA FAMILY, FROM A VILLAGE NEAR SATARA, NOW GWALIOR HAJAS. 1724 Ramují Sindia, an officer in the Peshwa's army. Jyapa, succeeded to his father's jagir of half of Malwa, murdered 1759. 1750Datiaji, second son of Ranuji, enguged in the Panjab wars. Mahadaji, third, illegitimate, confirmed in jagir by Madhorao, died 1794. 1769 Doubst rao, his grand-nephew, adopted; fixed his camp at Gwalier, 1817. 1794 1825 Baiza Bai, his widow, adopted Jankuji, and acted as regent. Jankuji, assumed the reins of government. 1833 V .- THE HOLKAR FAMILY. 1724 1750 1767 Ahilya Bai, his mother, but died soon after. Tukaji Holkar (no relation), appointed to command of troops. 1797 Jeswant Rao Holkar, illegitimate son, maintained predatory rule. 1805 confirmed in jagir of Indore, etc., died insane. 1811 Tulsi Băi, widow, adopted his illegitimate child, Mulhar Rao Holkar; battle of Mehadpur, December, 1818 Martand Rao, adopted son, dispossessed by 1834 Hari Holkar, present chief. VI.-GAIKWAR FAMILY-NOW REIGNING AT BARODA, GUJABÁT.

Dammaji Gnikwar (Shamsher Behadur), officer under Khandi Rao Holkar.

Pilaji Gaikwar, nominated Séna Khas Khèl; murdered.

- Dammaji, son, occupied east of Gujarat, died 1768. 1732
- 1768
- 1771
- Govind Rao, second son, succeeded; but eldest, Syaji, an idiot, supported by Fatih Sinh, youngest, who held real power at Baroda. Mannaji Rao, assumed charge of Syaji, as regent; died 1793. Govind Rao, made regent 19th December, died September, 1800. 1790
- 17931800 Ananda Rao, eldest son; disputes with Mulhar and Kanhaji.
- 1805 Treaty with the British Government.
- Fatih Sinh.

## Table LII .- Sikh Government of Lahore.

- A.D. 1419 Nanak, founder of the Sikh sect, born.
- Guru Angad, wrote some of the sacred books.
- 1552 Amera das, Khetri.
- 1574 Råm dås, beautified Amritsir.
- 1581 Arjun Mal, compiled the ' Adi Granth.
- 1606 Har Govind, first warlike leader.
- 1644
- Har Ray, his grandson, Har Krishna, died at Dihli. 1661
- 1664 Tegh Behådur, put to death by Moslems.
- 1675 Guru Govind, remodelled the Sikh Government.
- 1708 Bandu, last of the succession of Gurus; put to death by Auranguib. Predatory bands; internal fends.
- Twelve misals or tribes of Sikhs captured Lahore and occupied Panjab. Charat Sinh, of Sukalpaka misal, died 1774.
- 1774 Maha Sinh, his son, extended his rule; died 1792.
- 1792
- his wife, regent, with Lakpat Sinh minister.

  Ranjit Sinh (born 1780), established Lahore independency. 1805

### BUDDHIST GENEALOGIES.

# Table LIII .- Chinese and Japanese Chronology.

(From M. Klaproth's translation, Paris, 1833). The Japanese names are distinguished by the letter J.

Ta chen seng wang. I sau ma wang.

Yeon lo the wang.

Genealogy of Sakya, according to the Bauddha works of the Chinese.

Kio lo wang. Ni feon lo wang.

Szu tsu kie wang (Sans. Sinhahāna-kabāna).

Tsing fan wang, Suddodana (and three brothers, Sans., Suklodana Amitidans, and Dhotodana). Si tho to, nan tho, Chykia (Sákya muni), born. Sákya becomes eminent in eighth year of Ajstasvara of Magadha.

B.C. 1027

- Sakya or Buddha (Fo), attains nirvana (dies). 949
- Annn (Ananda), second patriarch, dies. 868
- A yu wang (J., A ik ô) (Sans., Asoka), dies. 833
- 806
- Changna ho sieou, third patriarch, dies. Yeou po kiu to (J., Ou fa kik ta), fourth patriarch, dies. Thi to kin (J., Dei ta ka), fifth patriarch, dies at Mathura. Weng chu, disciple of Sariputra. 741
- 692
- 687
- 650 Commencement of Japanese monarchy.
- Mi chu kia (J., Mi sia ka), sixth patriarch of Magadha, dies. Lao tan (J., Rô tan), founder of Tso tsu sect in China, dies. Pho siu mi (J., Fà siu mi), seventh patriarch, dies in N. India. 637 604
- 590
- 551
- 650
- Confucius, bern in the kingdom of Lore.

  500 arbans of Kashmir (ka sits mi ra) preach the law.

  Foe the nan ti (J., Boudz da nan dai) eighth patriarch (Sans., Boudha-535 nandi) of Canara, dies.

- Fou the mi to (Sans., Boudhamita), ninth patriarch, dies. 487
- Hie, tenth patriarch of Central India, dies-442
- 383
- Fo na ye che, eleventh patriarch of Palibothra, dies. Ma ming ta szu, twelfth patriarch (Sans., Asvagocha) of Benares, dies. 327
- 264 Kin pi mo lo, thirteenth patriarch of West India, dies.

#### COMMENCEMENT OF THE THIN DYNASTY OF CHINA.

- Loung chou, fourteenth patriarch of Central India, dies. 212
- Kia na chi pho, fifteenth patriarch of West India. Ko li nan tho, makes an image of Mi le in India. 130
- Lo hoci le to, sixteenth patriarch of Kapila, dies. 113
- Sang kia nan thi, seventeenth patriarch, born at Chi lo fa, dies. 74
- Kin ye che to, of Ma ti, eighteenth patriarch, dies. 13 King hian fotches Buddhist scriptures from the kingdom of Yue ti. Kieu mo lo to, of Ferghana, nineteenth patriarch, dies. Hindus carry Buddhist religion into Java. 2
- 221 A.D.
  - 24-57
    - 65 Buddhism introduced at the Court of Ming ti, Emperor of China.
    - 74 Tu ye to, twentieth patriarch of India, dies.
    - Pho sicou phan theou, twenty-first patriarch, dies. 117
    - 165 Mo nou lo, of Nati, twenty-second patriarch, dies.
    - Ho le na, of Ferghana, twenty-third patriarch, dies. Szu tsu pi khicu, of Magadha, twenty-fourth patriarch, dies. 209
- 259
- 266-313 The 'Prajua Paramita' translated into Chinese
  - Won lo tchhu, of Khotan, translates the Fang kouang king. 300
  - Pho che szu to, of Ki pin or Cabul, twenty-fifth patriarch, dies. Introduction of Buddhism into Kaoli (Corea). 325
  - 372
  - Kieon mo lo chy, settles in China and translates 'Mah'a Prajna.' Introduction of Buddhism into Pe tsi (in Corea). 382
  - 384
  - 388 Pon jou my to, twenty-sixth patriarch of India, dies.
  - 399 Chy fa hian visits India to study.
  - Introduction of Buddhism into Tibet, under Hlato tori. 407
  - 414
  - Chy fa hian returns to Chang ngan. Death of Foe fou pha the lo, of Kapila vastu, who translated the Houyan 429 king in China.
  - Pan jo to lo (Prajna dhara) of S. E. India, twenty-seventh patriarch, dies. 457
  - Pou thi ta ma (Bodhi dharma), twenty-eighth patriarch of N. India, 499 settles in China as first patriarch of that country, dies in 508.
  - Sang kia pho lo, of Fou nan, made chief of Chinese Buddhist temples by 506 the Emperor Siuan ven ti; dies in 525.
    - Introduction of Buddhism into Sin lo or Sinra (in Corea).
  - 552Ditto into Japan.

528

- Death of Hoei kho ta szu, second patriarch of China. 592
- Seng lin ta szu, third patriarch, dies. 606
- Yuan bonang, samanean of the Chhin family, travels in India and trans-629-645 lates many books.
  - General introduction of Buddhism into Tibet, under Srong dbzam gampo.
  - Death of Tao tin ta szu, fourth patriarch of China. 651
  - 675
  - Death of Houng jin ta szu, fifth patriarch of China.

    Ti pho ho lo, priest of Magadha, visits China and translates books.

    Chy chha nan tho, of Cabul, ditto, dies in 710.

    Hoei neng ta szu, last patriarch of China, dies. 676
  - 699
  - 713
  - 732 Pou koung, a brahman sramana, visits China and translates the questions of Manju Sci (Kin kang ting king).
  - 814 (about) Phan jo, priest of Cabul, settles in China and translates the 'Hous you king.'
  - 854 Phan jo, made Fa pao ta szu, grand master of the treasure of religion.

<sup>1</sup> The Chinese MS. of the 'Bibliotheque du Roi' ends here.-M. Klaproth derives the continuation from other Chinese and Japanese authors.

## Table LIV .- Buddhist Chronology of Tibet.

From the 'Vaidurya Karpo,' written at Hlassa in the year A.D. 1686. Translated in Csoma's 'Tibetan Grammar,' p. 181.

n.c. 962 Birth of Shakya (Chomdandas).

The Kala Chakra system taught by him; his death. 882

881 The 'Mula Tantra' compiled at Shambhala. 879 Death of Zla brang, king and author of ditto.

878 Padma Sambhava born.

838 Manju Ghosha born in China.

432 Nagarjuna born.

278

252 618

Rigs-dan-grags-ps, ascended the throne of Shambhala.

Nyan-tsan, king of Tibet (Thothori), died 371.

Doctrine of 'endeavouring perfection' upheld.

Num-gyal, king of Shambhala; epoch of 403 years, called Mekha gya-622tso, commenced.

627 Srong-tsan gam-bo born.

639 Kong-cho, a Chinese princess, arrived in Tibet. Phrul-snang college, or Vihar, built at Lhassa. Khri srong, king of Tibet. 651

728

- 747 Padma Sambhava arrived in Tibet; returned to India, 802.
- 804 A new astronomical period commenced. 861 Langtarma born; abolished Buddhism, 899.

965 Kala Chakra system introduced into India. 971 Restoration of Buddhism.

980 Atisha born.

1002 Brom-ton, the teacher, born.

Sol-nag thang monastery founded. 1015

1024 Mekha gya-tsho era terminated.

1025 Kala Chakra, or Jovian cycle, established in Tibet. 1038

Milaraspa born. 1052

Lang rithang pa born. Ragreng college founded. 1055

1057 Lo-dang shesrab, the translator.

1071 Monasteries of Sangphu and Sakya founded.

1077 Tagpo-lha-je born.

1079 Grathang monastery founded.

Ras-chhung pa born. 1082

Kun-gah-nying-po, the great Stakya Lama born; died 1156. Phag-me-grub-pa born. Period of 'deep meditation' commenced. 1090

1108

1118

Yubrag pa born. Shakya Sri born. 1121 1125

1134

Nyang, the prince, born. The Thet monastery founded. The Tshal monastery founded. 1156

1173 1177

The Bri-gung monastery founded.

1178 The Stag-lung ditto.

1180 The great Sakya pandit born. 1185 Gung-tang monastery founded.

1202 Shakya Sri, of Kashmir, arrived in Tibet.

1210 Ter-ton Lama born.

The Lang-tang monastery founded. The Byang and Dor ditto. 1211

1223

1233 Gro gon phagspa born, mastered Tibet 1251

The Chhos-lung monastery founded. 1253

1288 Bu-ton born.

1300 Ta-si-byang chhub-gyal tshan born.

Theg-chhen chhos gyal born ; became Tari (king) 1347. 1347

1347 Thes-thang monastery founded,

```
A.D. 1355
            Incarnation of Taong-khapa; died 1417.
     1383
             Thang-tong-gyal-po born.
     1389
             Ge-dun-grub-pa born.
     1403
             Shes-rab, the great interpreter, born.
     1407
             Yearly confession at Lhassa established by ditto.
             Karma pa born ; Bras-pungs Vihar founded.
     1414
     1417
             The Sera monastery founded.
     1419
             The Sang-nags-khar ditto.
             Dus-zhabs-nor-zang-gya-tsho born.
The Nor monastery founded by the Sa-skyas.
     1421
     1427
     1429
             Ge-legs pal-dan succeeded to the Gal-dan chair.
     1433
             The Nalenda monastery was founded.
             The Chhab-do-byams-gling ditto.
Zna-lu-legs-pa succeeded at Gal-dan.
The Pal-khor chaitya built.
     1435
     1436
     1437
     1439
             Lotsava chhos-kyong-zang-pa born.
             The 'Pod-kar hal lung,' work on Lunations, etc., written.
The Bras-yul monastery founded.
     1445
     1447
     1448
             Logros succeeded at Gal-dan.
     1461
             Baso ditto.
             The Gong-kar Vihar founded.
     1462
             The Ser-dog-chan ditto.
     1467
     1470
             The Byams-gling ditto.
     1471
             Logros-tan-pa succeeded at Gah-dan; died 1473.
Incarnation of Gé-dun gya-tsho; died 1540.
     1474
             The Ta-nag thub stan-nam gyal monastery founded.
Mon-lam-pal succeeded at Gah-dan.
     1476
     1478
     1500
             Tshar chhen born.
             The Chhoe-khor monastery founded.
     1507
             Khas grub pal gyi sengè born.
      1535
     1541
             Snod-nams gya-taho born ; died 1586.
      1575
                                   - invited by Althun khan, a Mongol prince.
             yon-tan gya-tsho born; died 1614.
      1576
      1587
             Nag-vang lo rang gya-tshe born.
Period of 'morality' commences.
     1615
     1618
             Rigs-dan sengé, succeeds at Gah-dan.
      1625
      1639
             Stan dsin chhos gyal, king of Tibet.
             Nag vang lo zang conquered whole of Tibet.
      1640
      1643
                                founded the Potala (residence).
                                 visited China.
      1650
      1686
            This Chronology compiled at Lhassa.
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# Table LV.—Kings of Tibet, to the subdivision of the country in the tenth century.

(From the Depter non po, or ancient Records of Zhomnu Pål, in Tsang, or middle Tibet; extracted and translated by M. A. Csoma Körösi.)

```
gNyah khri 8tsanpo—(about two hundred [
                                           Grigum Msanpo.
  and fifty years B.C.)
                                           Spudé gung rgyel.
Khri btsanpo \ These two names may de-
                                           Esho legs.
  hod/dé,
                  sign the same person,
                                           Désho legs.
                                           Thiso legs.
                  according to different
Mukhri ötsan-
                  authorities.
                                           Guru legs.
Dingkhri bisanpo.
                                           AGrong zhi legs.
So khri btsanpo.
                                           Isho legs.
Mér khri bisanpo.
                                           Za nam za Idé.
Dags khri stsanpo.
                                           IDé Adul-nas gzhung bisan.
Sribs khri stsanpo.
                                           Sé rnol nam idé.
```

Sé rnolpo /dé. ADus sang mangpo rjé. Dé rnol nam. Dé rnolpo. IDé rgyelpo. IDé Srin étsan. rGyel tori long bisan. Khi staan, or Khri dGah. dPungs btsan. Khri thohi rjes grogs ötsan. Lha Thothori gNyan ötsan—(five hundred years after the first king), A.D. 407, see Chinese list. Khri gNyan gzugs štsan. kGro gNyan idem-bu. Stagri gNyan gzigs. gNam ri srong btsan. Srong Stann sgampo-born a.D. 627. Gung srong gung bean-(died before his father). Mang srong mang btsun-(son of Srong btsan, etc.)

B.O. S.H.

kLung nam barunggi rgyelpo. Khri sdé gtsug örtan més ats'hogs. Khri srong sdé stsan—(born a.D. 726.) Muné bisaupo. Khri Idé srong bisan (or Mutig bisanpo.) Ralpa chen. Khri hum ôtsan dpal. (or &Langdar ma?) A.D. 900. gNam idé hod srungs - (in the 10th century; anarchy.) dPal Akhor btsan—(division of Tibet into several small principalities.) bKra shis brtségs dpal. Skyid Idé Nyima segon. dPalgyi mgon-(occupied Maryul or Ladags. bKrashis idé mgon—(took possession of Spurangs.) Dé gtsug mgon.

Then follow the names of some kings or princes who reigned in Gugé and Spurangs (or, in general, in Nari), above Garhwal and Kamaon, commencing with the tenth century. At L6 in Ladage may be found the names of the kings that successively reigned in that principality; but I could not procure them. There is great confusion in the series of the princes that reigned in Nari, and their enumeration would be of little interest. There are in Tibet several works containing lists of the descendants of Nya khri tsanpo, the first king, whom they derive from the Litsabyi race, in India; but in different authors the orthography sometimes varies, and even the whole name is differently stated. This, which I now communicate, has been taken from the Dep-ter hon-po, 'Ancient records,' written by Zhonnu pål, a learned religious person, who lived some centuries ago, and belonged to the Sa-akya religious sect, in gTsang, in Middle Tibet. -A. C.

# Table LVI .- Burmese Chronological Table, translated in Crawford's Embassy.

691		The grand epoch established by An-ja-na, the grandfather of Gautama.
628		Gautama born.
608		Gautama began to reign.
589		Gautama obtained deflication (became a Buddha).
551		Ajatasat began to reign.
544		Gautama died and obtained nib-b'han (annihilation).
543	1	The sacred epoch established by king Ajatasat.
520	24	His son, U-da-ya-bad-da, began to reign.
496	48	His son, Muny-da, and after him, his son, Na-gu-da-sa.
485	69	Maha Sam-b'ha-wa.
478	66	His younger brother, Chula Sam-b'ha-wa, began to reign.
472	72	Su-sa-na-ga, in Maj-ji-ma (Central India).
453	91	His son, Ka-la-san-ka, in Maj-ji-ma.
443	101	Twat-ta-paong, the founder of Sa-re-k'het-ta-ra (or Ras-se Myo, vulgarly called Prome).
426	118	His son, Bat-la-se-na, in Maj-ji-ma.
404	140	Nun-da began to reign, and was followed by eight kings of the same name, in Maj-ji-ma.
392	162	Chan-ta-kut-ta, in Maj-ji-ma (Chandragupta).

```
376
        168
               His son, Bin-tu-sa-ra, in Maj-ji-ma.
373
         171
               His son, Twat-ta-ram, in Prome.
               His son, Ram-b'haong, in Prome.
351
         193
330
        214
               His son, D'ham-ma-sau-ka, in Maj-ji-ma.
                D'ham-ma-sau-ka received the sacred affusion (Ab'hi-se-sa).
326
         218
               Prince Ma-hin-d'ha became a priest (Rahan), and his sister, Princess
320
         224
                   San-g'ha-mit-ta, a priestess (Rahan)
               The period of the third rehearsal of the communications of Gautama.
307
        237
                   The priest Ma-hin-d'ha went on a religious mission to Si-ho (Ceylon).
               Ra-ham-man, son of D'ham-ma-sau-ka, began to reign in Prome.
Death of D'ham-ma-sau-ka (literally, 'his going to heaven').
His son or grandson, Kak-k'han, began to reign in Prome.
301
         243
289
         255
251
         293
         325
                His son, Khan-laong, in Prome.
219
               His son, Lak-k'hong, in Prome.
182
         362
               His son, Si-k'han, in Prome.
His son, Si-ri-rak, in Prome.
         396
148
         426
118
               Ta-pa-mang, in Prome.
         436
111
 94
         450
               The communications of Gautama reduced to writing in Ceylon.
         484
               Ta-pa-man's son, Pi-ram, in Prome.
 60
         505
               Ram-mak-k'ha in Prome, and his son.
 39
A.D.
21
               Ram-sin-ga, in Prome, and his son.
His son, Ram-mun-cha-lin-da, in Prome.
         565
 54
         568
 39
         583
                His brother, Be-rin-da, in Prome.
                His son, Mun-ja, in Prome.
His son, Pu-nyan-nya, in Prome.
  54
         598
         600
  56
                His brother, Sa-k'ha, in Prome.
  59
         603
         606
                Sa-k'hi, in Prome.
 62
               His younger brother, Kan-un, in Prome.
His elder brother, Kan-tak, in Prome.
His elder brother, Bin-ja, in Prome.
         609
  65
  66
         610
  69
         613
         617
                His son, Su-mun-dri, in Prome.
 73
         P.H.
                The Prome epoch, established by king Su-mun-dri,
  76
                His son, Ati-tra, in Prome.
           2
  80
                His brother, Su-panya-na-ga-ra-chin-na, in Prome.
  83
           5
                Death of king Su-panya-na-ga-ra-chin-na,
Sa-mud-da-raj began to reign in Pugan.
  94
          16
107
          29
                Ras-se-kyaong, in Pugan.
Phru-chau-ti, in Pugan.
His son, Thimany-runy, in Pugan.
His son, Bang-mang-pok, in Pugan.
          74
152
167
          89
         164
242
299
         221
                His son, Pok-san-lany, in Pugan.
Bud-d'ha-gau-sa went to Ceylon.
         246
324
386
         208
                Pok-sung-lany's son, Kyaong-du-rach, began to reign.
387
         309
                His son, Sany-t'han.
         334
 412
                Muk-k'ha-man and Su-rai.
         391
 469
                Sany-t'han's great grandson, Ra-mwan-mya.
 494
         416
                Sok-ton.
         438
 516
                His son, Sang-lang-kyaung-ngai.
His brother, Sang-lang-pok.
His brother, K'han-laong.
         445
 523
         454
 532
          469
 547
                His brother, K'han-lap.
         579
 557
                His son, T'hwau-t'hok.
 569
         491
                His son, T'hwan-prach.
His son, T'hwan-khyach.
 582
         504
         520
 498
                 Pup-pu-chau-ra-han.
 613
          535
          V.E.
                The present vulgar epoch established by Pup-pa-chau-ra-han.
 639
                 His son-in-law, Shwe-bun-si, succeeded
            2
 640
                 His brother, Pis-sun.
 652
           14
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A.D.
           v.H.
 660
           22
                  His son, Pit-taung
 710
           72
                  His brother, Na-k'hwe.
 716
           78
                  Myang-ka-kywe.
                 Sing-ga.
Sing-k'hwan.
 726
            88
 734
           96
          106
 744
                  His son, Shwe-laung.
                 His son, The-wan-twang.
 753
          115
 762
          124
                  His son, Shwe-mauk.
          128
 766
                  His son, Chau-k'hang-nach.
                  His brother, T'hwan-lwat.
His son, K'hai-lu.
 785
          147
 829
          191
                  His brother, Pyany-bya.
 846
          208
 864
          226
                  His son, Tan-nak.
                  Sin-chwan, and his brother, Cha-le-nga-kwe.
 889
          251
 914
          276
                  His son, Sing-g'ho.
Taung-su-kri (the mountain chief)
 930
          292
                  Kwan-chau Kraung-pru,
 945
          307
 966
          328
                 His son, Kraung-cho.
          334
                  His brother, Chuck-ka-té.
 972
 997
          359
                  Kraung-p'haus'son Nau-ra-t'ha-chau.
1030
          392
                  His son, Chau-lu.
                 Kyan-chach-sa.
His grandson, Alaun-chany-su.
His son, Ku-la-kya.
1056
          418
1081
          443
1151
          513
                  His son, Mang-rai-na-ra-sung-ga.
His brother, Na-ra-pa-ti-chany-su.
1154
          516
1157
          519
                 His son, Je-ya-sing-ga, or Nan-taung-mya-mang.
His son, Kya-chwa.
His son, Uch-cha-na.
His brother, Mang-k'hen-k'hye.
1190
          552
1212
          674
1227
          589
1233
          595
1277
                  His son, Kyany-chwa.
          639
                  His son, Chau-nach.
Ta-chi-shang-si-ha-su, in Panya-
1291
          653
1300
          662
1313
          675
                  His son, Chau-mwan-nach, in Panya.
                  His son, Uch-cha-us. This year Asang-k'ha-ra-chau-rwan founded
Chit-kaing, and began to reign.
1322
          684
                  His elder brother, Ta-ra-bya-kri, in Chit-kaing Sagaing.
His younger brother, Na-chi-shang-kyany-chwa, in Chit-kaing.
His son, Kyany-chwa, in Chit-kaing.
Chau-mwan-nach died, and Pugan was destroyed.
1330
          692
1342
          704
1351
          713
1356
          718
                 Kyany-chwa's brother, Mau-pa-na-ra-su, in Chit-kaing.
His elder brother, Uch-cha-na-praung, in Chit-kaing.
1362
          728
1364
          726
                     Sa-to-mang-bya founded Angwa (Ava), and began to reign; Chit-
kaing and Panya were destroyed.
                  His father-in-law, Many-kri-chwa, in Ava.
His son, Ta-ra-bya-kri, in Ava, succeeded the same year by Mang-
1377
          739
1401
          763
                     ksung the First.
1422
                  His son, Chany-pru-shang-si-ha-su, in Ava.
His son, Many-Pha-gray, in Ava, succeeded the same year by Ka-le-
          784
1425
          787
                     kye-ngo.
                  Mo-n'hany-mang-ta-ra, in Ava.
His son, Mang-rai-kyany-chwa, in Ava.
His brother, Na-ra-pa-ti-kri, in Ava.
1426
          788
1439
          801
1442
          804
1468
          830
                  His son, Mang-k'haung the Second, in Avn.
1501
                  His son, Shwe-nan-kyany-shang, in Ava (proper name, Na-ra-pa-ti.)
          863
1526
          888
                  Mo-n'hany-so-han-pwa, in Ava.
                  Un-b'haung-chan-b'hwa, in Ava.
His son, Mo-bya-na-ra-pa-ti, in Ava.
1541
          903
1546
          908
1551
          913
                  Cha-kong-chany-su-kyaoy-taung, or Na-ra-pa-ti-gan, in Ava.
1554
          916 Sa-to-mang-chau, in Ava.
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1565	927	Prany-chun-mang-rai-kyany-chwa, in Ava.
	959	Nyaung-ram-man-kri, in Ava.
1597	1.00	His son, Anauk-pak-lwan-mang-ta-ra-kri, in Ava.
1605	967	
1629	990	Sa-Iwan in Ava.
	1010	His son, Na-dat-da-ya-ka, in Ava.
1661	1023	His brother, Prung-mang, in Ava.
1672	1034	His son, Na-ra-wara, in Ava; succeeded the same year Mang-rai- kyany-tang, grandson of Sa-lwan.
1698	1060	His son, Man-nung-ru-da-nga-da-ya-ka, in Ava.
1714	1076	His son, Chang-p'hru-shang, in Ava.
1733	1095	His son, K'haung-thit, carried captive to Han-sa-wati.
1752	1114	Alaung-b'hu-ra (Alompra) began to reign at Mut-cho-bo (Monchabo).
1760	1122	His son, U-pa-ra-ja, at Chit-kaing.
	1125	His brother, Chany-p'hru-shang (Sembuen), at Ava.
1763		His one Changlen of Ava.
1776	1138	His son, Chany-ku-cha, at Ava. His cousin, Paung-ka-cha, commonly called Maung-mang, son of
1781	1143	U-pn-ra-ja, at Ava; succeeded the same year by his uncie, Pa-dun- mang, or Man-ta-ra-kri, son of A-laung-b'hu-ra, and founder of
1819	1181	A-ma-ra-pu-ra. His present Majesty, grandson of Pa-dun-mang, ascended the throne
1000	1104	at A-ma-ra-pu-ra.
1822	1104	Ava rebuilt, and made the capital.
TABLE	LVI	I.—Chiefs of Labong and Zimmay.—(Northern Lacs of
		Europeans; Yeun Shan of the Burmess.)
	122000000	NACONAL CONTRACTOR OF THE PROPERTY OF THE PROP
	From	the Native Records consulted by Dr. D. Richardson, 1834. MS.
A.D.		Park
A.D. 576 578	8.E. 1118	Bud. Wathee daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma devi), daughter of the king of Chandanur, widow of Cambodia rāja.
576	8.E. 1118	Bud. Wathoo daywa (Vasudova) and Taka danda, founded Labong. Placed Vama on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia raja. 36 Kings, or 'Lorda of the White Elephant.' Aditza-woon-tha built the Pagoda.
576	8.E. 1118 1120	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lords of the White Elephant.' Aditza-weon-tha bailt the Pagoda. 19 kings to
576	8.E. 1118	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davī), danghter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lords of the White Elephant.' Aditxa-weon-tha bailt the Pagoda. 19 kings to Bēnya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu
576 578	8.E. 1118 1120 v.e. 651	Bud. Wathoo daywa (Vasudeva) and Taka danda, founded Labong. Placed Vama on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia raja. 36 Kings, or 'Lords of the White Elephant.' Aditza-woon-tha built the Pagoda. 19 kings to Bénya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family.
576 578 1289 1294	8.E. 1118 1120 v.E. 651	Bud. Wathoo daywa (Vāsudova) and Taka danda, founded Lahong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 36 Kings, or 'Lorda of the White Elephant.' Aditza-woon-tha built the Pagoda. 19 kings to Bénya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay.
576 578 1289 1294 1331	8.E. 1118 1120 v.e. 651 656 693	Bud. Wathoo daywa (Vasudova) and Taka danda, founded Lahong. Placed Vama on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia raja. 36 Kings, or 'Lords of the White Elephant.' Aditan-woon-tha built the Pagoda. 19 kings to Bénya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son.
576 578 1289 1294	8.E. 1118 1120 v.E. 651 656 693 695	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-weon-tha bailt the Pagoda. 19 kings to Bénya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya - founded Zimmay. Nga then patchoon, his son. No tchoon ta yung.
576 578 1289 1294 1331	8.E. 1118 1120 v.e. 651 656 693	Bud. Wathoo daywa (Vasudova) and Taka danda, founded Lahong. Placed Vama on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia raja. 36 Kings, or 'Lords of the White Elephant.' Aditan-woon-tha built the Pagoda. 19 kings to Bénya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son.
576 578 1289 1294 1331 1333	8.E. 1118 1120 v.E. 651 656 693 695	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-weon-tha bailt the Pagoda. 19 kings to Bénya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya - founded Zimmay. Nga then patchoon, his son. No tchoon ta yung.
576 578 1289 1294 1331 1333 1334	8.E. 1118 1120 v.E. 651 656 693 696	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lords of the White Elephant.' Aditza-weon-tha bailt the Pagoda. 19 kings to Bénya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tchoon ta yung. Na tchoon tareung.
576 578 1289 1294 1331 1333 1334 1336 1345	8.E. 1118 1120 v.e. 651 656 693 695 696 698 707	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-woon-tha bailt the Pagoda. 19 kings to Bénya men yea (in Burmose, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tehoon ta yung. Na tehoon tareung. Ngathenpoo. Tso kamprū.
576 578 1289 1294 1331 1333 1334 1336 1345 1347	8.E. 1118 1120 v.E. 651 656 693 696 696 698 707 709	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-woon-tha built the Pagoda. 19 kings to Bénya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tchoon ta yung. Na tchoon tarsung. Ngathenpoo. Tso kanprū. Tso boa you.
576 578 1289 1294 1331 1333 1334 1345 1347 1369	8.E. 1118 1120 v.E. 651 656 693 696 696 696 707 709 731	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-weon-tha built the Pagoda. 19 kings to Bānya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tchoon ta yung. Na tchoon tareung. Ngathenpoo. Tso kamprā. Tso boa you. Goona.
1289 1294 1331 1333 1334 1345 1347 1369 1377	8.E. 1118 1120 v.E. 651 656 696 696 698 707 709 731 739	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), danghter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-weon-tha bailt the Pagoda. 19 kings to Bénya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tchoon ta yung. Na tchoon tareung. Ngathenpoo. Tso kanprū. Tso boa you. Goona. Gnathen numa.
576 578 1289 1294 1331 1334 1336 1346 1347 1369 1377 1380	8.E. 1118 1120 4.E. 651 656 695 696 698 707 709 731 739 742	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), danghter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lords of the White Elephant.' Aditza-weon-tha bailt the Pagoda. 19 kings to Bēnya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tchoon ta yung. Na tchoon ta yung. Na tchoon tareung. Ngathenpoo. Tso kanprā. Tso boa you. Goona. Gnathen numa. Thambi.
576 578 1289 1294 1331 1334 1336 1345 1347 1369 1377 1380 1420	8.E. 1118 1120 v.E. 651 656 696 696 698 707 709 731 739 742 782	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davī), danghter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lords of the White Elephant.' Aditza-woon-tha bailt the Pagoda. 19 kings to Bénya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice marvied into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tehoon ta yung. Na tehoon tareung. Ngathenpoo. Tso kanprā. Tso boa you. Goona. Goona. Gnathen numa. Thambi. Tso Benya.
576 578 1289 1294 1331 1334 1336 1345 1347 1369 1377 1380 1456	8.E. 1118 1120 v.E. 651 656 693 696 698 707 709 731 739 742 782 817	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-weon-tha bailt the Pagoda. 19 kings to Bānya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice marvied into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tchoon ta yung. Na tchoon tareung. Ngathenpoo. Tso kamprū. Tso boa you. Goona. Gnathen numa. Thambi. Tso Benya. Tso neat.
1289 1289 1294 1331 1333 1334 1336 1347 1369 1377 1380 1420 1420 1483	8.E. 1118 1120 v.E. 651 656 693 696 696 707 709 731 739 742 782 817 826	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-weon-tha bailt the Pagoda. 19 kings to Bānya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tchoon ta yung. Na tchoon tareung. Ngathenpoo. Tso kamprū. Tso boa you. Goona. Gnathen numa. Thambi. Tso Benya. Tso neat. Benya yothee.
576 578 1289 1294 1331 1334 1336 1347 1369 1377 1380 1420 1453 1503	8.E. 1118 1120 v.E. 651 656 696 696 698 707 709 731 739 742 782 816 826 865	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-weon-tha bailt the Pagoda. 19 kings to Bénya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tehoon ta yung. Na tehoon ta yung. Na tehoon tareung. Ngathenpoo. Tso kanprū. Tso boa you. Goona. Gnathen numa. Thambi. Tso Benya. Tso neat. Benya yothee. Tso myn ar.
576 578 1289 1294 1331 1333 1334 1345 1347 1369 1377 1380 1420 1453 1463 1503 1537	8.E. 1118 1120 v.E. 651 656 696 696 698 707 709 731 739 742 782 817 826 899	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davī), danghter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-weon-tha bailt the Pagoda. 19 kings to Bénya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tchoon ta yung. Na tchoon ta yung. Na tchoon tareung. Ngathenpoo. Tso kanprū. Tso boa you. Goona. Gnathen numa. Thambi. Tso Benya. Tso neat. Benya yothee. Tso myn ar. Benya tsay.
576 578 1289 1294 1331 1334 1336 1347 1369 1377 1380 1420 1453 1503	8.E. 1118 1120 4.E. 651 656 698 707 709 731 739 742 782 817 826 868 899	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-woon-tha built the Pagoda. 19 kings to Bénya men yea (in Burmose, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tehoon ta yung. Na tehoon tareung. Ngathenpoo. Tso kanprū. Tso boa you. Goona. Gnathen numa. Thambi. Tso Benya. Tso neat. Benya yothee. Tso myn ar. Benya tsay. Tso myne.
576 578 1289 1294 1331 1333 1334 1345 1347 1369 1377 1380 1420 1453 1463 1503 1537	8.E. 1118 1120 v.E. 651 656 693 696 698 707 709 731 739 742 782 817 826 865 899 904	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-weon-tha bailt the Pagoda. 19 kings to Bānya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tchoon ta yung. Na tchoon tareung. Ngathenpoo. Tso kamprū. Tso boa you. Goona. Gnathen numa. Thambi. Tso Benya. Tso neat. Benya yothee. Tso myn ar. Benya yothee. Tso myn ar. Benya tsay. Tso myne. Zalanaba, his daughter, called there tha Dama mahadevi.
576 578 1289 1294 1331 1334 1336 1345 1347 1369 1377 1380 1420 1455 1463 1503 1537 1542	8.E. 1118 1120 4.E. 651 656 698 707 709 731 739 742 782 817 826 868 899	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davī), danghter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-weon-tha bailt the Pagoda. 19 kings to Bénya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tchoon ta yung. Na tchoon tareung. Ngathenpoo. Tso kanprū. Tso boa you. Goona. Gnathen numa. Thambi. Tso Benya. Tso neat. Benya yothee. Tso myn ar. Benya tsay. Tso myne. Zalapaba, his daughter, called there tha Dama mahadevi. Len bue myn shee, king of Pegu, took the town. His son, Narata 'tso.
576 578 1289 1294 1331 1333 1334 1336 1345 1347 1369 1470 1456 1463 1503 1503 1542 1544	8.E. 1118 1120 v.E. 651 656 696 696 698 707 709 731 739 742 782 865 899 904 906 920	Bud. Wathoo daywa (Vāsudeva) and Taka danda, founded Labong. Placed Vamā on the throne (or Zamma davi), daughter of the king of Chandapur, widow of Cambodia rāja. 35 Kings, or 'Lorda of the White Elephant.' Aditza-weon-tha bailt the Pagoda. 19 kings to Bēnya men yea (in Burmese, Dolana). Benya tso men yea, changed the capital; thrice married into Pegu family. Benya—founded Zimmay. Nga then patchoon, his son. No tchoon ta yung. Na tchoon tarsung. Ngathenpoo. Tso kamprū. Tso kamprū. Tso boa you. Goona. Gnathen numa. Thambi. Tso Benya. Tso neat. Benya yothee. Tso myn ar. Benya tsay. Tso myn ar. Benya tsay. Tso myne. Zalapaba, his daughter, called there tha Dama mahadevi. Len bue mya shee, king of Pegu, took the town. His son, Narata 'tso.

1763	v.n. 1125	Neo oung recovered his independence.
$\overline{}$	-	Lenbu Sheen, son of Alompra of Ava, took it. Benya sa Ban rebelled, threw off Burmese yoke, and joined Bankok
1778	1140	allegiance. Chou chee weet, present king.

# TABLE LVIII.—Sovereigns of Ceylon.

# From the 'Ceylon Almanack,' the Honorable George Turnour's Epiteme.

	From the 'Ceylon Almanack,' the Ho	morable George Turnour's Epitome.
3.0.	Namos:	Relationship of each succeeding sovereign.
543	Wejaya (Vijaya)	The founder of the Wejayan dynasty.
505	Oopatissa I.	Minister; regent.
504	Panduwaasa	Paternal nephew of Wejaya.
474	Abhaya	Son of Panduwasa; dethroned.
454	Interregnum.	ove or route name, orthodox
437	Pandukaabhaya (capital Anuradh-	
-	pura)	Maternal grandson of Panduwassa.
367	Mootaseewa	Paternal grandson.
307	Devenipeatissa	s cond son.
267	Oottiya	Fourth son of Mootaseewa.
257	Maha-seewa	Fifth ditto.
247	Suratissa	Sixth ditto; put to death.
237	Sens and Goottika	Foreign usurpers; put to death.
215	Asela	Ninth son of Mootaseewa; deposed,
205	Elasla	Foreign usurper; killed in battle.
161	Dootoogaimoonoo	Son of Kaawantissa,
137	Saidaitissa	Brother.
119	Toohl or Thullathanaka	Younger son; deposed.
119	Laiminitiesa I. or Lajjetissa	Elder brother.
109	Kaloonna or Khallaata Naaga	Brother; put to death.
104	Walagambahoo I, or Wattagaamini	Brother; deposed.
103	Pulahattha (usurpers)	
100	Basyiha	A CONTRACTOR OF THE CONTRACTOR
98	Panaymaaraa	14. 7—Foreign usurpers; successively
91	Peliyamaaraa	deposed and put to death.
90	Daathiya	
88	Walagambahoo I	Reconquered the kingdom.
76	Mahadailitissa or Mahachoola	Son.
62	Choora Nasga	Son; put to death.
50	Kooda Tissa	Son; poisoned by his wife,
47	Anoola	Widow.
41	Makalantissa or Kallakanni Tessa	Second son of Koodatissa,
19	Bantiyatissa I, or Bantikaabhaya	Son.
A.D	Mahadalilas Massa on Darthille	Donathan
9	Mahadailiya Maana or Daathika	Brother.
21	Addagaimoono or Aamanda Gaamini	Son; put to death.
30	Kinihirridailla, or Kanijaani Tissa	Brother.
33	Kooda Abhaa or Choolaabhya	Son.
34	Singhawallee or Secwalli	Sister; put to death.
35	Interregnum.	W-11111
	Elloona, or Ila Naaga	Maternal nephew of Addagaimoone.
44	Sanda Moohoona, or Chanda Mukha	g.,
62	Seewa	Son.
60	Yasa Siloo, or Yataalakatissa	Brother; put to death.
66	Subha	Usurper; put to death.
110	Wahapp, or Wasahba	Descendant of Laiminitiess.
113	Waknais, or Wanka Naasika	Son.
110	Gajaabahoo I. or Gaamini	Son.

9.62	V2400000	
125	Watness,	Relationship of each succeeding sovereign.
	Mahaloomaana, or Mallaka Nanga	Maternal cousin.
131	Baatiya Tissa II. or Bhantika Tissa	Son.
	Choola Tissa, or Kanittha Tissa	Brother.
173	Koohoona, or Choodda Naaga	Son; murdered,
183	Koodanaama or Kooda Naaga	Nephew; deposed.
184	Kooda Sirinaa, or Siri Naaga I	Brother-in-law.
209	Waiwahairatissa, or Wairatissa	Son; murdered.
231	Abha Sen, or Abha Tissa	Brother.
239	Siri Nanga II	Son.
241	Weja Indoo, or Wejaya II	Son; put to death.
242	Sangatissa I.	Descendant of Laiminitiesa; poisoned.
246	Duhama Sirisanga Bo, or Sirisanga	1,1
-	Bodhi L	Ditto; deposed.
248	Golco Abhaya, Gotha Abhaya, or	(1000) The control of
	Meghawarna Abhaya	Ditto.
261	Makalan Detoo Tissa I.	Son.
275	Maha Sen	Brother.
302	Kitsiri Maiwan I. or Kirtissri,	
	Meghawarna	Son.
330	Detoo Tissa II	Brother.
339	Bujas or Budha Daasa	Son.
368	Oopatissa II	Son.
410	Maha Nasma	Brother.
432	Senghot or Sotthi Sena	Son; poisoned.
432	Laimini Tissa II., or Chatagaahaka	Descendant of Laimini Tissg.
433	Mitta Sena, or Karalsora	Not encolfied a part to doubt
434	Paandu	Not specified; put to death.
439	Paarinda Kooda	1757
4.55	Khudda Paarinda	94 0 P.
455	Daatthiya	>24. 9—Foreign usurpers.
4.58	Pitthiya	BIES
459	Pitthiya	Described for the same
*00	Denomiconstyn, or Duante Bena	Descendant of the original royal family;
477	Siriri Kasaambaa on Kasaana I	put to death.
495	Sigiri Kasoomboo, or Kassypa I	Son; committed suicide.
513	Moogallana I.	Brother,
010	Koomaara Dass, or Koomaarau	8 1
522	Dhaat Sena	Son; immolated himself.
531	Kirti Sens	Son; murdered.
	Maidi Siwoo, or Siwaka	Maternal uncle; murdered.
531	Laimini Oopatissa III	Brother-in-law.
534	Ambaherra Salamaiwan, or Silsa-	
***	kasla.	Son-in-law.
547	Daapuloo I. or Duatthaapa Bhodoi	Second son; committed suicide.
547	Dulamngalan, or Moogallaana II	Elder brother.
567	Kuda Kitsiri Maiwan I, or Kirtissri	
	Meghawarna	Son; put to death.
586	Senewi, or Maha Naaga	Descendant of the Okaska branch,
589	Aggrabodhi I. or Akbo	Maternal nephew.
623	Aggrabodhi II. er Soela Akbo	Son-in-law.
633	Sanghatissa	Brother; decapitated.
633	Boona Moogalan, or Laimini Bo-	10 CH
	naaya	Usurper; put to death.
639	Abbasegganheka, or Asiggaaheka	Maternal grandson,
648	Siri Sangabo II.	Son; deposed.
648	Kaloona Detootissa, or Laimina	[suicide.
	Katooreya	Descendant of Laimini Tissa; committed
649	Siri Sangabo II	Restored, and again deposed.
665	Daloopeatissa I, or Dhatthepatissa	Laimini branch; killed in battle.
677	Paisooloo Kasoombo, or Kaasaypa II.	Brother of Sirisangabo.
686	Dapuloo II	Okaaka branch; deposed,

693	Names. Daloopeatiss II. or Hattha-Dattho-	Relationship of each succeeding severeign.
702	patissa Puiscoloo Siri Sanga Bo III. or	Son of Daloopeatissa I.
	Aggrabodhi	Brother.
718	Walpitti Wasidata, or Dantanaama	Okaaka brunch.
720	Hoonnonara Riandalnor Hatthada-	
-	tha	Original royal family; decapitated.
720	Mahalaipaanoo, or Maanawamma	Ditto,
726	Kassiyappa III. or Kasoombo	Son.
729	Aggrabodhi III. or Akbo	Nephew.
769	Aggrabedhi IV. or Kuda Akbo	Son (capital Pollonnaroowa).
715	Mihindoo I. or Salamaiwan	Original royal family.
795	Dappoola II. Mihindo II. or Dharmika-Seelaam-	Son.
800	Miningo II. or Dharmika-Sectam-	0
	nigh	Son.
804	Aggrabodhi V. or Akbo	Brother.
81.5	Dappoola III. or Kuda Dappoola	Son.
831	Aggrabodhi VI.	Cousin,
838	Mitwella Sen, or Selaamaiga	Son.
858	Kaasiyappa IV. or Maaganyin Sena,	
	or Mihindoo	Grandson.
891	Udaya I	Brother.
926	Udaya II. Kaasiyappa V. Kaasiyappa VI.	Son.
937	Kaasiyappa V	Nephew and son-in-law.
954	Knasiyappa VI	Son-in-law,
964	Dappoola IV.	Son,
964	Dappoola V	Not specified.
974	Udaya III.	Brother.
977	Sena II. Udaya IV	Not specified.
986	Udaya IV	Ditto.
994	Sena III.	Ditto.
997	Mihindoo III.	Ditto.
1013	Sena IV	Son; minor.
1023	Mihindoo IV	Brother; carried captive to India during the Solecan conquest.
1059	Interregnum	Soleean vice-royalty.
1071	Wejayabahoo I. or Sirisangabo IV.	Grandson of Mihindoo IV.
1126	Jayabahoo I	Brother.
1127	Gajaabahoo II	A disputed succession.
1153	Prakramabahoo I.	Son of Maansabarana,
1186		Nephew; murdered.
1187	Mihindoo V. or Kitsen Kisdaas	Usurper; put to death.
1187		A prince of Kaalinga.
1196		Son; put to death.
1196		
1196	Chondakanga	Brother of Kirti Nissanga, put to death. Nephew; deposed.
1197	Leelawati	Widow of Prakramabahoo; deposed.
1200		Okaaka branch; deposed.
1202		Sister of Kirti Nissanga,
1208	Transference to second contract the second s	Not specified; a minor.
1209		Minister; put to death.
1209		Restored, and again deposed.
1210		Usurper; deposed.
1211	Leelawati	Again restored, and deposed a third time,
1211		Usurper: deposed
	Maagha	Usurper; deposed. Foreign usurper.
1214		- orange doubler.
1214 1235	Weiayababoo III. (con. Dambadinia)	
	Wejayabahoo III. (cap. Dambadinia)	Descendant of Sirisangabe I.

A,D,	Names.	Relationship of each succeeding sovereign.
1301	Bosat Wejaya Bahoo IV	Son.
1303	Bhuwaneka Bahoo I	Brother,
1314	Prakrama Bahoo III.	Son of Bosat Wejaya Bahoo,
1319	Bhuwaneka Bahoo II. (at Hasti-	Son of Bhuweneka Bahoo.
	Pandita Prakrama Bahoo IV	Dell of Dillwellett Danoo.
	Wanny Bhuwaneka Bahoo III	5-77-7 July 10
		Not specified
1347	Bhuwanska Bahas IV (at Compata)	Not specified.
1361	Bhuwaneka Bahoo IV. (at Gampala)	
1371	Prakrama Bahoo V	Cousin.
1378	Physical Bahas V	Cousen.
1398	Bhuwaneka Bahoo V.	Nat marified
1410	Wejaya Bahoo V, or Weera Bahoo	Not specified.
	Siri Frakrama Bahoo VI. (at Kotta)	Material mandam contact to death
1462	Jayan Bahoo II.	Maternal grandson; put to death.
1471	Bhuwaneka Bahoo VI.	Not specified.
	Pandita Prakrama Bahoo VII	Adopted son.
1485	Wira Prakrama Bahoo VIII	Brother of Bhuwaneka Bahoo VI.
1505	Dharma Prakrama Bahoo IX	Son.
1527	Wejaya Bahoo VII.	Brother; murdered.
1534	Bhuwaneka Bahoo VII.	Son.
1542	Don Juan Dharmapaala	Grandson.
	A Malabar, at Yapahoo.	122
	Portuguese at Colombo.	VV0/3/
	Weediye Raja, at Pailainda Nowera.	(0)
	Raajasingha, at Aiwissawelle.	and S Ma
	Idirimaaney Suriya, at Seven Korles.	A361 . 7305
	Wikrama Bahoo, at Kandy.	1. (c.b.) 40000 F
1581	Rasjasingha I.	Son of Masyasdunnai.
1592	Wimala Dharma	Original royal family.
1604	Sensaratena, or Senerat	Brother.
1635	Raajasingha II	Son.
	Koomaara-singa	Brother.
	Wijaya Paala	Brother.
1685	Wimila Dharma Suriya II	Son of Raajasingha.
1707	Sriwira Prakrama Narendra-singha,	
	or Koondasaala	Son.
1739	Sriwejaya Rasjasingha, or Hangu-	
	ranketta	Brother-in-law.
1747	Kirtisri Raajasingha	Brother-in-law.
1781	Rasjaadhi Rasjasingha	Brother,
1798	Sree Vikrama Rasjasingha	Son of the late king's wife's sister, de- posed by the English, and died in cap- tivity.

In the native mode of recording the lengths of individual reigns, without refering them to a fixed epoch, anachronisms are unavoidable: Mr. Turnour has judicionsly applied the following fixed points to correct the foregoing table.

543 The landing of Vijaya, in the year of Buddha's death. 307 The mission from Dharm-soka to establish Buddhism in Ceylon. 104

90 209

252

301

The mission from Dharmasoka to establish Bundhism in Ceyle The conquest of Ceylon by the Malabars. The founding of Abhavagiri by Wala gaurbahu. The date of the Vaitúliya heresy, in Vaivahara's reign. The revival of ditto, in the reign of Gold Abhaa. Death of Makasen, 4 years anachronism. Another revival of the Vaitúliya heresy, in Ambakira's reign. Origin of the Vijra waadiya heresy, in Mitwella Sén's reign. The accession of Prákrama Báhú, 6 years anachr. 545 838

.

A.D. 1200 Ditto of Sahasa Mallawa, by Dambulla rock inscription, A.B. 1473.

1266 Ditto of Pandita Prákrama Báhú III., error seven years.

1347 Ditto of Bhuwanika Báhú IV.

In the remaining portion of the history of Ceylon, other materials have not been wanting for the adjustment of its chronology.

TABLE LIX. Greek dynastics in Asia, founded after the death of Alexander the Great, by his Generals, etc.

B.C.	SY	RIA.	
334	Alexander the Great; born, 356; died, 323.	B.C.	Antiochus VII. Sidetes.
312		137	
280		128 125	Alexander II. Zebina.
261	Antiochus II. Theos.		Seleueus V.
246	Seleucus II. Callinicus.	125	Antiochus VIII. Grypus.
226		112 96	Antiochus IX, Cyzicenus.
223		95	Seleucus VI, Epiphanes.
220	(Achaus.)	90	Antiochus X. Eusebes.
187	Seleucus IV. Philopator.		Antiochus XI. Epiphanes
175	Antiochus IV Frinkense	0.4	Philip, and
164		94	Demetrius III. Eucerus.
162		88	Antiochus XII. (Dionysius of
150	Alexander I, Bala,	0.00	Josephus).
147	Demetrius II. Nicator.	83 69	Tigranes, of Armenia.
144	Antiochus VI, Theos.		Antiochus XIII. Asiaticus.
142	Tryphon,	65	Syria became a Roman province.
***	Atypuon. Blods	13(3(2)	7 504
	PART	THIA.	
B.C.	2551 Arsaces I.	AD.	1 - 10:10
20.00	253 Tiridates • I.		(Cinnamus.)
	216 Artabanus I.		(Artabanus III.)
	196 Phraapatius.	42	Bardanes.
	181 Phrahates I.	46	Gotarges.
	173 Mithrudates I.	50	(Meherdates).
	136 Phrahates II.	51	Vonones II.
	126 Artabanus II.	61	Vologeses I.
	123 Mithradates II.	62	(Artabanus IV.)
	87 Mnaskires.	77	Pacorus.
	77 Sinatroces.	108	Chosroes.
	70 Phrahates III.	115	(Parthamaspates).
	60 Mithradates III.	116	(Chosroes restored).
	54 Orodes I.	121	Vologoses II.
	37 Phrahates IV.	148	Vologeses III.
	(Tiridates II.)	192	(Vologeses IV.)
	(Phrahates IV.)	209	(Vologeses V.)
A.D.	4 Phrahataces.		Artabanus V.
	5 Orodes II.	235	Artaxerxes, King of Persia, 1st
	5 Vonones I.		of the Sassanides, (See table
	13 Artabanus III.		LXI).
	(Tiridates III.)		
		92.	

#### KNOWN KINGS OF BACTRIA.

[I have omitted this list of Prinsep's, which was necessarily less complete than the elaborated series already inserted at p. 173, vol ii. of this work]

<sup>&</sup>lt;sup>1</sup> The dates in this list, as well as the new names inserted in brackets, are taken from Mr. Lindsay's work on Parthian coinages. The titles of the kings appended to Prinsep's note \* are also corrected up from the same authority.]
\* The family name Arsaces is applied to all the princes of Parthia, hence called

TABLE	LIXa.—Areacidan	Kings of	Armenia,	according	to	Moses	of
		Chorn	0.00				

		Chorene.		
B.C.		T. 1	Years.	
149	130	Valarancesreigned	22	Vaghurshag.
127	108	Areaces I.	13	
114	95	Artases I.	25	
89	70	Tigranes II.	33	19th year of Arsaces III.
55-36	34	Artavasdes I		
	20	Arsamus	20	20th of Arses.
	4	Abgarus	38	20th of Arsavirus.
	35	Sanatruces	30	
	65	Eruandus II.	21	8th of Darius.
	86	Artases II	43	29th ditto.
	129	Artavasdes II.	few da	Y8.
	129	Tiranus I.	21	3rd of Feroz I.
	150	Tigranes III	42	
	192	Valarses	33	30th of Valarses.
	225	Chosroes I.	47	2nd of Artabanus.
	272	Interregnum under Artasires and Sanor Sassan.		
	286	Tiridates	56	3rd of Diocletian.
		(Intervallum).		ora or Diocecumin.
	337	Chosroes II	9	8th of Constantius.
	353	Tiranus II.	- 11	***************************************
	364	Arsaces II	30	
	394	Papus	07	
	401	Varusdates	-	20th Theodosius.
	406	Arsaces III.	5	13151
	411	Chosroes III	5	
	416	Veramus Sapores	21	
	437	Choeroes III. restored	-1	
	438	Sapores	4.0	5550
	442	Interreguum.		
	444	Artasires	6	
	450	The Armenian kingdom extinguished.		

# Table LX .- Mythological Period of Persian History.

#### PESHDÁDIAN DYNASTY.

Kalumars, by some supposed to be Adam, or Noah, reigned at Balkh. Siamek, his son. Hoshang. Thamurath, surnamed Deoband.

Jamshid, reigned at Persepolis. Zohak, surnamed Alvani, an invader.

Feridan, restored by Kawa the blacksmith.

Iráj. Koshang. Manuchehr. Naudar. Afrasiab, king of Türkistän Zab, brother of Naudar. Ghorshasp.

the Arsacidm, and is almost the only one visible on their coins. [Their coin titles The Arsender, and is almost the only one visible of their colds. [Index cold thick (usually occurring in the genitive case) are—BANIAECH, BANIAECH BANIAECH, BANIAECH, BANIAECH, BANIAECH, BANIAECH, BEPAAOT, BEOGRATOPON, BEOGRATOPON, BIAAAACHOON, ERIGANOTN, EYEPFETOT, ATTOKPATOPON, GIAEAAHNON GIAOGIATOPON, NIKATOPON, AIKAIOT, ETHATOPON NEIKHNAN, TION KEKAAOTMENON.]

#### KAIANIAN DYNASTY.

Kai-kobūd (kai signifies the mighty).
Kai-Kāūs, son or grandson. Hustam his general.
Kai-Kāūs, son or grandson. Cyrus the great.
Lohrāsp, son of Orond Shāh. (Cambyses omitted?)
Gushtāsp, his son. Hystaspes of Grecian history.
Isfendiār, his son. Apanda or Astynges of ditto.
Kai Bahman, or Ardeshir darāzdast. Artaxerxes Longimanus.
Homāi, daughter and wife of ditto.
Dārāb, son of ditto.

Dara, his son: the Darius overcome by Alexander the Great.

(The Mulûk-tawaif, or petty kings, following Alexander, called by the Persians the Ashkanians and Ashghanians, have been given above as the Arsacidm of the Greeks.—J.P.)

# TABLE LXI .- Kings of Persia, of the Sassanian race.

[The subject of the dates of the accessions of the Sassanian dynasty is involved in some obscurity, from the practice prevailing of reckoning by the years of each king's reign instead of following the order of a single cycle. I have contented myself for the present with quoting the dates given in Dr. Smith's Dictionary, and appending Dr. Mordtmann's latest determinations a propos to his elaborate coin illustration of the history of the race.]

Bruith	. Mord	mann	
A.D.	A.D.		AND Section 10.
226	226	1	Ardeshir-Babegan bin Sasan, or Artaxerxes.2
240	238	2	Shahpuhr, Shapur, or Sapor, captured Valerian.
273	269	3	Hormund or Hormindas.
274	271	4	Bahnram, or Varanes I.
277	274	- 5	Baharam, or Varanes II.
294	291	6	Baharam, or Varanes III. Segan Shah.
294	291	7	Narsê or Narses, conquered Armenia and Galerius.
303	300	8	Hormuzd, or Hormisdas II.
310	308	9	Shahpuhr, or Sapor II.
381	380	10	Ardeshir, or Artaxerxes II.
385	383	11	Shahpuhr, or Sapor III.
390	389	12	Baharam, or Varanes IV. Kerman Shah.
404	399	13	Yezdegird, or Isdegerde I.5
420	420	14	Baharam-gaur, or Varanes V. visited India.
			Isfahani,' Latin Preface,' p. vi.]
232	Arts	ei-ne	Years, A.D. Years, A.D. Years,reigned 53 421 Artasires IIreigned 4
285	Same	men T	reigned 53 421 Artasires II. reigned 4
	None	age I	31 425 Veramus I. Cermanus 10
344	Hom	mind.	9 435 Isdigerdes I
922	Lon	nistia	A TOTAL CONTRACTOR OF THE PROPERTY AND ADDRESS OF THE PARTY OF THE PAR
	T.A.	conte	mporary of Constantine).   467 Isdigerdes II
	Tours.	7th v	Feroses II. in whose reign Moses of car of Constantine). Chorene lived.—J.P.
351	Sapo	res I	I
	[Sem		handrand and the state of the s
Tafe)	Ent.	n 14	hors insert a second king of this name after Yezdegird I Hamzah
the i	ntern	Jetin	Mordtmann, p. 64; but there seems to be no sufficient authority for

the interpolation.]

```
Smith. Mordtmann.
      440
448
             15
                  Yezdegird, or Isdegerde II.
                  Hormuzd, or Hormisdas 111.
458
      457
             16
458
      458
             17
                  Firuz, or Perose, allied with Khakan of Huns.
                  Balás, Palash, or Balasces,
Kobád, or Cavades.
484
      485
             18
488
      491
             19
                  Jamasp. (Kobåd recovers kingdom 502.]
Khosrd, Kesri (Nushirvån), or Chosroes.
Hormuzd, or Hormisdas IV. deposed by his general (Varanes VI.
498
      498
             20
             21
531
      631
579
      579
                     A.D. 590, M. A.D. 591.)
591
      591
             23
                  Khosru-Parviz, Kesri, or Chosroes II. put to death by
628
      628
             24
                  Kobad Shiruyich, or Siroes.
      629
             25
                  Ardeshir III. Anarchy.
      629
             25
                  Shahriar or Sarbazas.
      629
             27
                  Púrán-Dukht.
      631
             28
                  Azermi-Dukht.
                  Ferokh-zád-Bakhtvar.
      631
             29
    1 632
             30
                  Yezdegird or Isdegerde III. overthrown by Musalmans 641.
```

Table LXII.—Khalifs, vicegerents or successors of Mahomed or Muhammad bin Abd-allah, whose death occurred in the 11th of Hijra era, or A.D. 632.3

(This and the following from Marsden's 'Numismats Orientals,' corrected up from

```
later Numismatic works.)
     632
11
                 Abúbakr.
13
     634
              2
                 U'mar.
23
     644
              3
                 U'sman.
35
                 A'li.
     656
              5 Hasan bin A'li, retired to Medina-Husain killed at Kerbela
40
                 RACE OF OMMIAH, REIGNING AT DAMASCUS.
                 Mua'wish I.
41
     661 - 2
                 Yazid bin Mus'wish.
60
     679-80
              2
                 Mua'wiáh II. bin Yazid.
64
     683-4
              3
64
     684
                 A'bdallah bin Zubeir.
```

<sup>1</sup> [632 A.D. is the date of the commencement of this king's reign, which has given the initial year to the era bearing his name. See p. 142, vol. ii. auts, Ockley's 'Hist. Saracens,' pp. 145, 277.]

<sup>2</sup> [I have altered the original transliteration of these names in order to reduce the orthography of the Roman equivalents to as close an adherence to the literal definition of the original Kufie as the nature of our English system of writing will permit. The nine letters of the Arabic alphabet, whose powers have been perverted in the utterance of foreigners, have been made to follow the Persian system of phonetic expression, and are severally represented by the following English pointed or accented equivalents:—

ہ ہے ہے ہے۔ ق ع ظ ط ض ص ڈ ح ث a',u',etc, k ہے او او او

The Arabic powers of these letters are severally—1.  $t\hbar$  ( $t\hbar$ ick); 2.  $\hbar$ ; 3.  $t\hbar$  ( $t\hbar$ is); 4. s; 5. d; 6. t; 7.  $t\hbar$  ( $int\hbar$ er); 8. a; 9. k (guttural). I have not concerned myself greatly with the correction of the equivalents of the Arabic short vowels, but it may be noted that, under the old system, the English vowel s ordinarily stood for what modern practice represents by the short a, though in many cases it was inserted indifferently in the place of the i.]

```
A.T.
       A.D.
 64
       684
                    Marwan bin Hakim.
 65
       684-5
                6
                    A'bd-ul-malik bin Marwan.
 86
       705
                7
                    Walid bin A'bd-ul-malik.
 96
       714-15
                8
                    Solaimán bin A'bd-nl-malik.
 99
       717-18
                9
                    U'mar bin A'bd-ul-a'xiz.
101
       719-20
               10
                    Yazid II. bin A'bd-ul-malik.
105
                    Hisham bin A'bd-ul-malik.
       723-4
               11
                    Walid II. bin Yazid.
       742-3
125
               12
126
       743-4
               13
                    Yazid III. bin Walid.
126
       744
               14
                    Ibrahim bin Walid.
127
       744-5
               15
                    Marwan II. bin Muhammad, deposed and slain.
                   RACE OF AL-A'BBAS, REIGHTNG AT BAGHDAD.
       749-50
132
                    Abúl A'bhas al-saffab.
136
       753-4
                    Almansúr.
                2
158
                3
       774-5
                    Al-Mahdí bin al-Mansur.
       785-6
169
                 4
                    Al-Hadí bin al-Mahdi.
170
       786-7
                    Harún al-Rashid bin al-Mahdi.
                5
193
       809-10
                    Al-amin bin al-Rashid.
198
       213-14
                    Al-Mamun bin al Rashid.
202 - 3
                    Ibrahim bin Al-Mahdi, competitor, 817-18.
       833-4
218
                    Al-Ma'taşem billah bin al-Rashid.
                    Al-Wasik-billah bin al-Ma'tasem.
227
       841-2
                Q
232
       846-7
               10
                    Al-Mutawakkil a'l allah bin Ma'tasem.
247
       861-2
               11
                    Al-Muntasir billah bin Mutawakkil.
               12
248
       862-3
                    Al-Ma'sta'in billah bin Muhammad bin Ma'tasam.
252
       866-7
               13
                    Al-Ma'taz billah bin Mutawakkil.
                    Al-Muhtadi billah bin Wüşik.
Al-Ma'tamed a'la illah bin Mutawakil; Egypt independent.
255
       868-9
               14
256
       869-70 15
                        Muwaffik billah, his coadjutor from 871 to 891.
279
                    Al-Ma'tazed billah bin Muwaffik.
       892-3
               16
                    Al-Muktafi billah bin Ma'tazed; provinces independent.
Al-Muktader billah bin Ma'tazed; murdered by a cunuch.
       901-2
289
               17
295
       907-8
               18
320
                    Al-Käher billah bin M'atased,
       932
               19
322
       933-4
               20
                    Al-Rasi billah bin Muktader; Amír ul umra powerful.
329
       940-1
               21
                    Al-Mutaki billah bin Muktader,
333
       944-5
               22
                    Al-Mustakfi billah bin Muktader.
334
       945-6
               23
                    Al-Muti'lillah bin Muktader.
363
       973-4
               24
                    Al-Tai' lillah bin Muti'.
381
       991-2
               25
                    Al-Kadir billah bin Ishak Muktader.
      1030-1
422
               26
                    Al-Kaim beamrillah Abu Ja'fur A'bd-Allah bin Kadir.
467
      1074-75 27
                    Al-Muktadi billah Abu'l Kasem A'bdallah bin Muhammad bin
                        Kaim beamrillah.
487
      1094-5
               28
                    Al-Mustaghir billah bin Muktadi.
512
      1118-9
               29
                    Al-Mustarshed billah bin Mustarhir.
      1134-5
529
               30
                    Al-Rashid billah bin Mustarshed.
530
      1135-6
               31
                    Al Muktafi beamrillah bin Mustaghir.
555
      1160
               32
                    Al-Mustanjed billah bin Muktaff.
                    Al-Mustan beamrillah bin Mustanjed.
      1170-1
               33
575
      1179-80 34
                    Al-Nasir le din illah bin Mustanjed, professes Shiah doctrines.
622
      1225
               35
                    Al-Zahir beamrillah Muhammad bin Nasir.
623
      1226
               36
                    Al-Mustanser billah Abu Jafar Al-Mansdr bin Zahir.
      1242-3 37
                    Al-Musta sem billah Abu Ahmad A'bd-Allah bin Mustanser.
In the year 656 (1258), Baghdad was besieged and taken by the Moghul Chief Hulagu, grandson of Jenghiz Khan, and the Khalif Musta'sem put to death.
```

[I have introduced among Prinsep's original extracts the Tables marked C. D. E. which have been compiled chiefly from the work of Hamzah Isfahání, for the purpose of illustrating more fully the annals of the Eastern provinces of the empire of the Khalifs, the successional history of which may chance to throw light upon some of the obscure dynastics of the conterminous kingdoms of India, whose epochs and transitions are so peculiarly identified with the objects of these volumes.

#### Table C.—Arab Governors of Khorásán: eapitals, Mere, Nishápúr, Bokhára.

(A'bdallah bin Tühir adopts the second, Isma'il bin Ahmad the third.) A.H. A.D. A.H. A.D. 790 Albasan bin Kahtabah. 747 Abû Muslim. 173 129 755 Abú Dáúd Khálid bin Ibrahim. 792 Ghitrif bin A'th. 175 793 Hamzah bin Malik. 757 Aba A'sam bin Salim. 177 140 759 A'bdul Jabarbin A'bdul rabman. 177 793 Alfazl bin Yahyi bin Khalid. 142179 795 A'mru bin Hamal. 143 760 Haxim bin Hazaimah. 763 Abá A'án A'bd ul Malik. 796 Mansur bin Yazid bin Alkha-179 144 766 Abú Malik Asid bin A'bdallah, 768 Háxim (again). 768 Humid bin Kabtabah. 149 lid Al-mahdi. Ja'far bin Yahyi. 150 180 796 A'li bin A'isi bin Mahan. 151 776 A'bdallah bin Humid. 192 808 Harsama bin Aa'yan. 193 809 Al Mamun (subsequently Kha-Aba A'an, 160 776Mu'ad bin Muslim. lif). 196 812 Alfagl bin Sahl (nominated) 780 Zahir bin Almasib. 782 Alfaşl bin Sulaiman. 818 Raja bin Zubak. 166 203 787 Ja'far bin Muhammad. 170 Ghasan bin A'bad. TABLE D .- Taherides. 819 Tahir bin Al-Husain, 844 Tahir bin A'bdallah. 204 822 Talbah bin Tahir. 248 862 Muhammad bin Tahir. 207213 829 A'bdallah bin Tahir. TABLE E .- Saffaris. 259 873 Ya'kûb bin Lais. 878 A'mrú bin Laig, defeated by Isma'il bin Ahmad, the Samani in A.H. 287, A.D. 900. 900 Tähir bin Muhammad success in Sistan (Price ii. 233). Table LXIII.—Sámánian or Sámáni Dynasty of Bukhárá, Khorásan and Persia. 261 874-5 1 Nasr bin Ahmad, great grandson of Saman, a robber chief, appointed governor of Bukhara by the Khalif Ma'tamad. Isma'il bin Ahmad. 892 279907 Abmad bin Isma'fl. 295 Nasr bin Ahmad. 301 914 943 Nuh bin Nasr. 331 A'bd-ul-malik bin Nuh. 343 954 Al-Mansur bin Núh. 350961 7 Núh ben Al-Mansúr. By some authorities this accession is placed 366 976 in Rajab, A.H. 365. 9 Al-Mansur bin Nuh, deposed and blinded. 387 997 A'bd-ul-malik bin Núh. [Ailek Khán enters Bukhárá on the 10th of Di'ka'dah, A.H. 389. 389 999 10 Isma'il bin Nuh, killed in the 3rd month of a.m. 395.]

oomposed in a.H. 330 = a.n. 961-2) edit. of حمزة بن العسن الأصفهاني 1

M. Gottwaldt : Lipsize, 1848

Table LXIV.—The Ghazní Dynasty, with the cotemporary Khalifs whose names appear on the local coinage.

(From the 'Jour. Roy As. Soc.,' 1848.)

Khaith of Baghdad.	Accepted Dates of Accession. A.H. A.H. A.D.			Kings of Chausi.	Notices of various Dates assigned be different Authorities.		
Al Muti' lillah Abdicates, Di'l Ka'dah, 363	334	350	961	Alptegín	Revolt 350, Ranzat al Safa.		
Al Tar lillsh Deposed by Baha al dowlah (Sha- ban), 381	363	366	976	Ishak	Alptegin's death doubtful (Abu Ishak Ibrahim, "Ibr		
Al Kadir billah	381	367	977	Subuktigin	Ḥaukal.")		
Died, Dfl Hajah, 422		387	997	Isma'fi	Subuktigin's death, 386, Násir Jenábí; 387, Abúl Faráj; 38 (Shabán), Rauzat al Safá Abúl Fida, Khalásat al Akh		
		388	998	Mahmud	bar. Entitled Saif al dowlah, 384 takes possession of Ghazer Rabi al Awal, 388; become independent, 389.—Variou		
		421	1630	Muhammad	authorities. Mahmūd's death, Rabi al Akhin 421, Abūl Fidā, Khalāsat a Akhbār.		
Al Kaim beamril-		421	1080	Mana'dd	Muhammad's 1st reign, 7 mths Nāṣiri. Masa'ūd's accession 422, Nāṣiri; 421 (3rd Shawāl) Raugat al Şafa, Khalisət a Akhbār.		
lah Died, 13 Shaban, 467	422	432	1040-1	Muhammad	Rebellion against Mass'úd, 43 (Rabi al Akhir), Abúl Fedá Muhammad's restoration 432, Násiri, Abúl Faraj ; 43 (Jumád alAwal), Akbari, 433 Habib al Sair; 433 (Jumád		
		432	1041	M6d6d	al Awal), Guzidah.  Muhammad's2ndreign,4mths.  Nasiri. Módúd's accession  432 (Shabān), Masar'ddi,432  Nāsiri. Ahūl Faraj. Entr- into Ghazni, 432 (23rd Shabān), Abūl Fidā. Accession  434, Guzidah; 433, Khalāsa		
		440	1048	Masa'úd II	al Akhbar; Ferishtah. Módád's death, 441, Nāṣiri Abūl Faraj; 441(Rajab), Abī Fida, Guzidah, Kaupat r Safa, Khalisat al Akhbar Ḥabūb al Sair.		

Khallife of Bogledôd,	Accepted Dates of Accession.			Kings of Ghazni.	Notices of various Dates assigned by different Anthorities.
		440	1048	Abúl Hasan A'li Bahú ai dowlah	Masa'úd II. and Abúl Hasan A'li, length of reign, jointly, 2 months, Násirí. Masa'úd II., 1 month, Guzádah, Habíb al Sair; 6 days, Taba- kút Akburí; 6 days, Ferishtah. Abúl Hasan A'li, length of reign 2 years, Guzádah, Khalásat al Akhbár; nearly 1 year, Habíb al Sair; 1 month, Tabakút
		440	1048	A'bdal Rashid	Akbari. Accession, 440, fixed from coins; 441, Nāṣiri, Abūl Faraj, Abūl Fidā; 443, Guzidah, Khalāsat al Akbbār.
		444	1052 1052	Toghral Ferokhzád	444, Abûl Pidû. Length of Toghral's rule, 40 days, Nûşirî, Khalâsatul Akh- bâr, etc. Ferokhzâd's acces-
	1	451	1059	Thrahim	sion, 443, Di'l Kadah, Naşiri. Accession, 451, Tarikh Masa'üdi, Naşiri, Abül Fida, Jenahi;
Al Muktadi beam- illah Died, 15 Muhar-	467			As .	450, Guzidah, etc.
rim, 487 Al Mustaghar billah Died, 16 Rabi al Akhir, 512		492	1099	Masa'6d III.,	Ibrahîm's death, 492, coins, Nășiri, Guzidah, Abûl Mahû- san; 481, Abûl Fida, Rauşat
	. 3	508	1114	Shirzad Kundi al donial	al Safá. Guzídah, Jenábí, etc.
1136 1733 P		509	1115	Arslán	Accession, 509, Nașiri, Guzi- dah, etc.
Al Mustarshid bil- lah	F00	512	1118	Bahrám Sháh	Capture and sack of Ghazni by A'là al din Jehansez, 547.
illah Insug., 12 Di'l Hajah, 530	530	547	1152	Khusrú	Accession, 552, Naşiri; 544. Guzidah; 548 or 550, Abdi Fida; 547, Akbari.
Al Mustanjid bil- lah	555	555	1160	Khusrú Malik	Khusrû Molik finally dispos- sessed of Ghazni by the Gho- ris, 567, Ferishtah; forcei to surrender at Lahór, 585 Bauşat al Şafa; 583, Akbari 582, Ferishtah.

## Table LXV.—Sultans of the Soljak Dynasty.

[The grandsons of Seljúk, a Turk of the tribe of Khazar or Ghaz on the Caspian, Toghrul-beg and Jáfer-beg Daoúd, were in the service of Mahmúd of Ghazni. In A.H. 429 (1036), the former resisted Masa'úd, and received investiture as Sultán of Khorán from the Khálif. The three branches of the Seljúk family settled in Hamadán, Kermán, and Rum or Anatolia.—Marsden's 'Or. Num.']

```
I .- SELJÚK DYNASTY OF IRÁN OR PERSIA.
429
      1037
              Rukn-ud-din Abuthaleb, Toghrel Beg, Mahmud,
455
      1063
              Alp Arslan, Abushajia, Azz ud-din.
Malekshah, Moaz ud-din abul fateh.
465
      1072
485
              Barkiarok, rokn ud-din abulmozaffer kasim: in his reign the empire was
      1092
               divided, he retaining Persia; Ghias ud-din Muhammad, Syria and Ader-
               bijan; and Moaz ud-din burhan sanjiar, Khorasan and Maverulnahr.
498
      1104
              Malek Shah, his son, deposed.
498
      1105
              Muhammad, chosen Sultan.
              Mahmúd, Moghiáth ud-dín Abul Kásem.
Daáúd, his son, deposed.
511
      1118
525
      1131
              Masa'dd, Ghiath ud-din, deposed.
526
      1131
527
      1132
              Toghrel, son of Muhammad.
529
              Masa'úd, re-established.
      1134
547
      1152
              Malek Shah, son of Mahmud, deposed.
             Mahmad, grandson of Bograkkan, at Merv.
Muhammad, his son, at Hamadan.
Sulaiman Shah, killed.
547
      1152
552
      1157
554
      1159
555
      1160
              Arslan Shah, son of Toghrel, son of Muhammad.
571
      1175
             Toghrel Shah, his son.
                         II.—SELJÜR DYNASTY OF KERMÂN.
433
      1041
              Kadherd, or Karut begh, installed by Toghrel begh.
             Sultan Shah, his son.
465
      1072
      1074
467
             Turan Shah,
489
      1096
             Iran Shah.
494
      1100
              Arslan Shah.
536
             Moghiath ud-din Muhamusad.
      1141
551
      1156
             Toghrel Shah.
              Bahram, Arslan, and Turan Shah dispute succession.
565
      1169
             Muhammad Shah, dispossessed by Malek dinar 583-1187.
         III.—SELJÚK DYNASTY OF RÚM OR ANATOLIA. CAPITAL ICONIUM.
470
      1077
             Sulaiman bin Kotlumish.
                  Interregnum of seven years.
478
      1085
485
      1092
             Dáúd Kilij Arslán bin Sulaimán,
             Saisan bin Kilij Arslân.
501
      1107
             Masa'dd bin Kilij Arslân.
A'zz-ud-din Kilij Arslân bin Masa'dd, destroyed first crusade army.
Kutb-ud-din Malik Shâh bin Kilik Arslân, deposed.
510
      1116
551
      1156
584
      1118
             Ghias-ud-din Kai Khusru bin Kilij Arslan, deposed.
588
     1192
596 ≥
             Rukn-ud-din Sulaiman bin Kilij Arslan, deposed.
600
      1203
             Kilij Arelán bin Rukn-ud-dín, deposed.
             Ghias ud-dín Kai Khusrú (restored).
A'zz-ud-dín Kai Káus bin Kai Khusrd.
600
      1203
607
      1210
              A'la-ud-dîn Kai Kobad bin Kai Khusrû.
616
      1219
             Ghiág-ud-din Kai Khusru bin Kai Kobád, invaded by the Moghul
634
      1236
                 Princes, descendants of Jenghiz Khan (See Table XLIX).
      1245
             A'zz-ud-din Kai Kaus, in nominal conjunction with his brothers, Rukn-
                 ud-din and A'la-ud-din, sons of Kai Khusru.
             Rukn-ùd-dîn Kilij Arslân.
Ghiás-ud-din Kai Khusrû bin Rukn-ud-dîn.
655
      1257
      1267
682 1283
             Masaud bin A'zz-ud-din Kai Kaus, died 708-1308.
```

## Table LXVI .- Atabegs of Irak, ruling Ministers under the later Princes of the Soljukian race.

#### MOSUL BRANCH.

Acres 1	ALC:	
C-(3:1)	3.3.049	I'mad-ud-din Zenei.
021	1127	I mag-un-um zenen.

Saif-ud-din Ghazi bin Zengi. 540 1145

1149 Kuth-ud-din Maudub bin Zengi.

Al-Mu'iz Snif-ud-din Ghazi bin Modud. 1170

576 1180 A'zz-ud-din Masa'úd bin Módúd.

Núr-ud-dín (Bedr ud-dín) Arslán Sháh bin Masá'ud. Malik al-Káhir A'zz-ud-dín Mas'aud bin Núr-ud-dín. 589 1193

607 1210

615 1218 Núr-ud-dín Arslán Sháh bin Káhir.

616 1219 Nasir-ud-din Mahmud bin Kahir.

1222 Al-Malik al-Rahim Bedr-ud-din Lulu.

657 1259 Al-Malik as-Şálah Isma'il bin Lúlú.

#### HALES (ALEPPO) BRANCH.

521 1127 Imád ud-dín Zengi.

540 1145 Malik al-A'adel Núr-ud-dín Mahmúd bin Zengi.

1174 569 A'l-Malik as-Sálah Isma'íl bin Núr ud-dín Mahmúd.

1181 I'mad ud-din Zengi bin Kutb ud-din bin Modad, delivered Haleb to Sálnh-ud-dín or Saladin.

1197 Kutb-ud-din Muhammad bin I'mad-ud-din, at Singara.

#### Table LXVII .- Turcoman Ortokite Princes, reigning in Mardin and Miafarkin, Syria.

#### Il Ghazi bin Ortok, seized Jerusalem and Mardin.

516 1122 Husam-ud-din Timurtash bin Il Ghazi.

Najm-ud-din Abu'l Mugaffar Albi bin Timurtash. 547 1152

572 1176 Kuth-ud-din fl Ghazi bin Albi (or Alpi).

580 1184 Husam-ud-din Yuluk Arslan bin Kuth-ud-din.

5973 Malik-ul-Manşar Naşir-ud-din Ortok Arslan bin Kutb-ud-din. 687 1239 Malik us-Sa'íd Najm-ud-din Ghází bin Náşir-ud-din Ortok.

Malik ul-Muzaffar Kara Aralan bin Najm-ud-din. 653 1255

691 1291 Shams-ud-din Daud.

693 1293 Malik ul-Manşûr Najm-ud-dîn Ghâzî.

712 1312 Albi Malik al-A'adil I'mad-ud-din A'li.

7121312 Malik as-Sáleh Shams-ud-din Sálah.

#### ORTOKITES BEIGNING AT AMÍD AND RHEIFA.

Sokman bin Ortok.

498 1104 Ibráhím bin Sokmán.

5227 1128 Rukn ud-din Dāád.

544? Fakhr ud-dîn Kara Arslan bin Daod.

562 Núr ud-din Muhammad bin Kara Arslan. 1166

581 1185 Kuth-ud-din Sokman bin Muhammad.

Malik as-Sálah Náşir ud-din Mahmúd. 1200

618 1221 Malik al-Masa'ûd bin Malik as-Şálah Mahmúd.

1231 Malik al-Kamil, nephew of Salah ud-din (Saladin), took Kmid.

#### Table LXVIII .- The Mogol or Moghul empire of Tartary. Capital Karakurm.

1206 Jengiz Khan, or Timugin declared emperor, on the Onon river.

1227 Toli Khan, his son, regent during interregnum.

1241 Oktai Khan, fourth son of Jengiz, elected by his father's will. Tourakina Khatun, his wife, regent for four years.

1246 Gaiuk Khan, son of Oktai.

A.D. 1248 Ogoulganmish, his wife, regent on his death. 1251 Mangu Khan, died in 1259.

The empire of the Moghuls was subsequently divided into different branches in China, Persia, in Kapchak, etc.

Kublai Khan, succeeded in China, and founded the Yuen dynasty.

Zagatai Khan, son of Jengiz, founded Zagatai branch in Transoxiana.

1226 Tushi Khan, another son, founded Kapchak dynasty.

(For these dynasties of the Tartars, and those of the Huns, Chinese, etc., see De Guignes' 'Histoire des Huns."-J. P.)

# Table XLIX.—Moghul-Tartar or Il-Khanian Dynasty of Persia.

On the death of Mangu Khan, son of Jengiz Khan, the sovereignty of Persin was assumed by his brother,

1259 657 Húlágú or Húlákú Il-Khán.

Abaga, or Abaka Il-Khan, his son. 663 1264

Nikudar Oglan, seventh son of Húláků, on conversion to Muhamma-681 1282 danism, took the name of Ahmad Khan.

683 1284 Arghún Káán, son of Abáká.

Kai-Khatú Káan, ditto. 690 1291

694 1294

694 1294

Baidú Káán, son of Targhih, fifth son of Húlákú. Gházán Káán Mahmúd, eldest son of Arghún. Ghiás-ud-dín Au-gaptú, Khudabandah Muhammad. Abú Sa'id Bahádur Khán, his son, on whose death in 703 1303 716

1316 7361335

The dynasty became dependent.

Anúshirván. Invasion of Taimur, or Tamerlans. (See below, LXX). 747 1346

## TABLE LXX .- Moghul Sultans of Khorásán,

Kuth-ud-dîn Amîr Timûr Gürgün Şâhibkirân (Tamerlane) conquered Baghdâd, invaded India, etc. 795 1393

Khalil Sultan, see of Miran Shah, deposed. 807 1404

Shah Rukh, Behadur Sultan.

Ulugh Beg, Malik us Sa'id, of Khiva. 850 1447

A'bdul Latif Mirzu, his son. 853 1449

Bábar Mírzá, Sultán Abul Kasam. 854 1450

Mírza Sháh Mahmúd deposed. 861 1456

861 1456 Abá Sa'id, son of Ahmad. (See Moghuls of India.)

Jiadighiar, grandson of Shah Rukh.

1470 805 Sultan Hosain Mirzh, grandson of U'mar.

901 1505 Badi' ezzamān, his son, took refuge with the Suffs.

# Table LXXI .- Kings of Persia of the Sophi, Sufi, or Safi Ruce.

Juneid, a descendant of Safi ud-din, a Sophi or mystic philosopher, being expelled from Aderbijan by the Turkoman ruler Jehan Shah, established himself in Shirwan. His grandson

905 1499 Isma'il al-Şúfi bin Shaikh Haidar, united conquered provinces and assumed sovereignty of Persia and Khorasan, 908-1502.

Sháh Tahmásp bin Isma'il. Sháh Isma'il II. bin Tahmásp.

983 1575

985 1577 Muhammad Khudáhandah bin Tahmasp. 994 1685 Hamsah bin Muhammad, or Amir Hams,

994 1585 Shah Isma'il bin Muhammad.

994 1585 Shah A'bbas bin Muhammad.

Shah Safi bin Safi Mirza bin A'bbas. 1039 1629

```
1052
       1642
               Shah A'bhas II. bin Shah Safi.
       1666
               Solaimán bin Sháh A'bbás.
1077
               Shah Husain bin Solaiman, last of the Safis.
       1694
1106
               Shah Tahmasp II. bin Shah Husain, abdicated.
       1722
               Mahmud, an Afghan, invaded Persia, and usurped.
1135
       1725
1137
               Ashraf, an Afghan, defeated by Nadir Kuli.
               Shah Tahmasp, nominally restored, murdered 1737.
A'bbas III. bin Tahmasp.
Nadir Shah, or Nadir Sultan, proclaimed king.
       1730
1242
1145
       1732
1148
       1736
               A adil Shah, nephew and murderer of Nadir.
       1747
1160
               Ibrahim, his brother.
1161
       1748
               Shah Rukh, blinded, driven to Khurasan.
1163
       1749
               Solaimán, or Mírzá Said Muhammad.
1163
       1750
               Ism'ail bin Said Mustafa, under regency of A'li Merdan.
Muhammad Kerim Khan Zendi, held power under title of Wakil.
1163
       1750
1173
       1759
               Zeki Khan, usurped on his death, murdered by
1193
       1779
               Abu'l Fath Khan, son of Kerim, blinded.
1193
       1779
1193 1779
               Sådik Khan, brother of ditto.
               A'li Murád Khán assumed the title of Wakil.
               Ja'far Khan, son of Şadik, murdered.
       1785
1199
               Lutí A'li, his son, defeated by
Agha Muhammad Khan Kajar, an eunuch.
1203
       1789
1209
       1794
       1797 Fath A'li Shah Kajar, died 1834.
1211
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#### Table LXXII.—List of the Patan, Afghan, or Ghori Sultans of Hindustan. Capital, Dihli.

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(Corrected up from the coins of the 'Pathan Kings of Dibli,' by the Editor.)
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Mu'iz-ud-dîn Muhammad bin Sam (5872) (1st Dynasty).
589
     11931
602
     1206
                 Kuth-ud-din Ai-beg.
607
     1210
              3
                 Arkm Shah.
                 Shams-ud-din Altumsh.
607
     1211
633
     1236
                 Rukn-ud-din Firoz Shah.
634
     1236
                 Sultán Rigiah.
                 Mu'iz-ud-din Bahram Shah.
637
     1240
                 A'la-ud-din Masa'úd Shah (11).
639
     1242
     1246
              9
                 Násir-ud-dín Mahmúd (12).
643
                 Ghias-ud-din Balban (5).
     1266
            10
664
                 Mu iz-ud-din Kaikubad.
686
             11
                 Jalal-ud-din Firoz Shah, Khilji 1 (2nd dynasty).
689
     1290
             12
                 Rukn-ud-din Ibrahim (9)
695
      1296
             13
                 A'la-ud-din Muhammad Shah (12).
     1296
695
             14
                 Shabab-ud-din U'mar (10).
      1316
             15
715
                 Kuth-ud-din Mubarak Shah (1).
716
      1316
            16
                 Nûşir-ud-dîn Khusrû.
Ghiáz-ud-din Tughlak Sháh (3rd dynasty).
Muhammad bin Tughlak (3).
720*
             17
720*
             18
725
      1325
             19
                 Firoz Shah bin Salar Rajab (1).
752
      1351
             20
      1388
             21
                 Tughlak Shah II.
790
                  Abdbakr Shah II.
             22
791 1389
             23
                  Muhammad Shah bin Firoz Shah.
793*
```

<sup>&</sup>lt;sup>1</sup> The dates of accession, as converted into the years of the Christian era, are calculated from the months in each Hijra year in which the several monarchs are determined by Sa'id Ahmad to have succeeded to the throne. The small figures in brackets indicate the months of each accession. The dates marked with a star are derived from coins, and do not coincide with our native author's historical deductions.

See vol. i. p. 326.

<sup>2</sup> Zia Baruni says 688 A.H.

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795°
       A.D.
             24
                  Sikandar Sháh.
795*
             25
                  Mahmúd Sháh bin Muhammad Sháh (Timúr, 800).
                  Nusrat Shah Interregnum (coins dated 797, 798, 800, 801 and
797
             26
                     807), Mahmud restored, 802.
                  Daulat Khan Lodi (1).

Khişr Khan Sa'id (4th dynasty) (3).

Mubarak Shah II. (5), coins extant with the date of 838 a.u.

Muhammad Shah bin Farid Shah (7).
816
      1413
             27
817
      1414
             28
824
      1421
             29
837
      1434
             30
                  A'âlam Shâh (?)
Bahlôl Lôdi (ôth dynasty) (3).
Sikandar bin Bahlôl (?)
849
             31
855
      1451
             32
894
             33
                  lbrûhim bin Sikandar (Bûbar, 932 a.u.) (11).
Muhammad Humáyún, Mughul (5). See Table LXXX.
923
      1517
             34
937
      1531
             35
946*
             36
                  Farid-ud-din Shir Shih, Afghan (?)
                  Islám Sháh (3).
Muhammad A'ádil Sháh (5).
952
      1545
             37
960
      1553
             38
962
      1555
             39
                  Ibráhím Súr (5).
962
                  Sikandar Shah (Humayan, 962 A.H.)
     1555
             40
Table LXXIII.—Patan or Afghan Sultans and Governors of Bengal.
       (Purbi dynasty.) Capital Laknauti, or Gaur. (Marsden.1)
             Muhammad Bakhtiar Khilji, governor of Berar under Kutb ud-din.
600
      1203
602
      1205
             Muhammad Sheran A'zz ed-din.
605
      1208
             A'li Mardan A'la ed-din.
             Hasam ed-din Ghias ed-din.
609
      1212
624
      1226-27 Nasir ed-din bin Shams ed-din,
             Mahmdd bin Shams ed-din, became Sultan of Hindustan,
627
      1229
634
      1237
             Toghan Khan, governor under Sultan Riziah.
641
      1243
             Tiji, or Taji.
642
      1244
             Timdr Khan Keran.
      1246
             Saif ed-din
644
             Ikbtiår ed-din Malik Yázbeg.
Jalál ed-din Kháni.
651
      1253
656
      1257
657
      1258
             Táj ed-dín Arslán.
659
      1260
             Muhammad Tatar Khan.
676
             Muiz ed-din Tughral.
      1277
             Nasir ed-din Baghra (by Dow written Kera), considered first sovereign
681
      1282
               of Bengal by some.
             Kadr Khan, viceroy of Muhammad Shah.
725
      1325
741
      1340
             Fakhr ed-din Sekandar assumes independence.
743
      1342
             A'lá ed-din Mubárik.
744
      1343
             Shams ed-din Muhammad Shah Ilias Bangarah,
             Sikandar Shah bin Shams ed-din.
760
      1358
769
      1367
             Ghiás ed-din Ka'zm Shàh bin Sekandar Shàh.
775
             Saif ed-din Sultan as-Sulatin bin Ghias ed-din.
      1373
785
      1383
             Shams ed-dîn bin Sulatin as-Sulatin.
             Kansa or Khansa, a Hindu.
787
      1385
      1392
             Jalal ed-dia Muhammad Shah (Chitmul bin Khansa).
812
     1409
             Ahmad Shah bin Jalal ed-din.2
830 1426-7 Násir Sháh (descendant of Shams ed-din Iliás Bangarah).
862
      1457
             Barbak Shah bin Nasir Shah.
             Yúsaf Sháh bin Barbak Shah.
879
     1474
```

<sup>1</sup> [See also Ayin-i-Akbari, vol. ii., p. 16.]
<sup>2</sup> Marsden remarks in a note: 'The coins show that the historical dates about this period are erroneous; but the means of correcting the mistakes are not sufficiently ample.' P. 562 'Numismata Orientala.'

A.D. 1482 Sikandar Shah. Fath Shah. 896 1490-1 Sháh-zádah, a cunuch. 897 1491 Firoz Sháh Habshí. Mahmud Shah bin Firez Shah. Muzaffar Shah Habshi. A'la ed-din Husain Shah bin Syed Ashraf. Nusrat Shah bin A'la ed-din Husain. Mahmud Shah bin A'la ed-din Husain, defeated by Farid ed-din Shir Shih. Humáyún held court at Gaur, or Jenatábád. Shir Shah again. Muhammad Khán. Khizr-Khān Bahādur Shāh bin Muhammad Khān. 962 1569 Knikt-Knan Bahadur Shan bin Au 968 1560-I Jalal ed-din bin Muhammad Khan. 971 1563-4 Solaiman Karani, or Karzani. 1573 Bhyazid bin Solaiman. 1573 Daud Khan bin Solaiman, defeated by Akbar's forces.

## Table LXXIV .- Kings of the East, or Sharki Dynasty of Jaunpur.

# (Ferishtah.)

796	1394	Khwajah Jahan, Subahdar of Kananj, Kudh, Kora, and Jauapur, assumed independence.
802	1399	Mubarik Shah, his adopted son.
804	1401	Shams ud-din Ibrahim Shah Sherki.
844	1440	Mahmud Shah bin Ibrahim.
862	1457	Muhammad Sháh,
862	1457	Husain Shah bin Mahmud bin Ibrahim Shah.
881	1476	- took refuge in the Court of 'Alk ud-din of Bengal, where
	22.50	he died in 905, A.H.

# Table LXXV.—Musalmán Kings of Kashmir. (Ferishtah.)

```
727
       1326
                Shams ud-din, Shah Mir, minister of Senadeva.
               Jamshid, expelled by his youngest brother,
A'lí Shir, A'lá ud-din; a severe famine.
750
       1349
752
       1351
765
       1363
               Shahab ud-din; Siamuk invades Sind.
               Kuth ud-din ; defeats Rája of Lokhot.
Sikandar, Butshikan ; subverts Hindú religion.
785
       1386
799
       1396
               Amir Khûn, A'li Shûh; civil wars; expelled by
Zain ul Ab-ud-din, Shâdî Khûn, his brother.
Haidar Shâb, Hajî Khûn.
819
       1416
826
       1422
877
       1472
878
       1473
                Hasan Shah.
891
       1486
               Muhammad, a child; civil wars.
902
       1496
                Fath Shah usurps the throne. Chakh tribe converted to Islam.
911
       1505
                Muhammad regains the throne; Ibrahim usurps.
                Nazūk Shūh; conquest of Emperor Humāyūn, 948-1543.
Mirzā Haidar Doghlat, governor under him; interregnum, and dissen-
       1535
942
       1541
948
960
       1552
                Ibrahim II., set up by Daulat Chakk : earthquake.
963
       1555
                Ism'ail, set up by Ghazi Khan's party.
                Habib, raised by Daulat Chakk.

Hosain Shah Chakk: embassy from Akbar.

Yusaf Shah Chakk, expelled by Gohar Chakk.
964
       1556
971
       1563
986
      1578
                    --- annexation of Kashmir to the Moghul Empire by Akbar.
997 1588
```

#### TABLE LXXVI.-Kings of Sind and Tatta.

A.B. 705 Belochistan invaded by Hijaj, governor of Basrah, and Muhammad Kasim.

The Ansaries, the Sumeras, and the Sumanas or Jams, successively, gain the ascendancy, then a Dihli governor.

1203? Násir ud-dín Kubáchah, becomes independent.

#### TABLE F.

I have compiled the following list of the Arab Governors of Sind from Beládorí,1 collated with and improved from Sir H. M. Elliot's excellent work on the Arabs in Sind.

93 Muhammad bin Kasim.

Yazid bin Abû Kabshah (appointed by Sulaiman).

96 3 Habib bin Muhalab. A'mra bin Muslim.

Junid bin A'bd al rahman (under Hisham).

107 Tamin bin Zaid.

Al hakam bin A'úánah.

8 A'mrû bin Muhammad. (Sulaiman bin Hisham-Aba Al-Khattab) 2 Under the A'bbasides.

9 A'bd al rahman bin Muslim, Al A'bdi, defeated by Mansúr bin Jamhúr, the local Governor under the Ummash Khalifs.

10 Músa bin Kn'ab, Altamimi; overpowers Manşûr. (The Tohfat ul Kirám attributes this victory to Daud bin A'li.)

140 11 Hisham bin A'mrū.

12 A'mar bin Hafs, Hazarmard.3

154 13 Rah bin Hatim.4

Daud bin Yazid bin Hatim. 184 14

Bashir bin Daud (about 200 A.H. Reinaud).

Ghassan bin A'bad. 213 5 16 Músa bin Yahia, Al Barmaki (dies in 221 A.H.) A'mram bin Musa.6

Yakub bin Laig. 257

Subsequent division of Sind into the two principalities of Multan and Al-Mansdrah.

#### Table LXXVII.—The Jam's Dynasty of Sumana, originally Rajpute.

737 1336 Jam Afra; tributary to Tughlak Shah.

740 1339 Jam Choban.

Jam Bani; asserted his independence. Timaji, his brother. 754 1353

782 1380

782 1380 Jam Salah ud-din; converted to Muhammadanism.

Jam Nizam ud-din, 793 1391 796 1393 Jám A'li Shir.

1 ['Abû Ja'afir Ahmad bin Yahya ibn Jabir al Baladori,' ob. inter 256 and 279 A.H. Ibn Khaldun, p. 438. Reinaud 'Fragments Arabes et Persans,' inédits relatifs à l'Inde.]

Appendix to the 'Arabs in Sind:' Cape Town, 1853. Elliot quoting 'Tohfat

ul Kirkm.]

Transferred from Sind to Africa in A.H. 161. Reinaud, p. 213 ]
 [A.H. 160 to 161. Reinaud.]
 [Gildemeister quoting Abülfeda ii. 150.]

Beladori.'] عمر بي عبدالعزيز الهباري Killed by "Beladori.']

966

1554

1572

1409 812 Jám Giran, son of Timaji. Jám Fath Khán. 812 1409 Jám Tughlak; invaded Gujerát. 1423 Jam Sikandar. 854 1450 856 1452 . Jam Sangar, elected. Jam Nanda, or Nizām ud-din; cot. of Hasan Langa. Jam Feroz; the Turkhan family become powerful, 1520. 1460 894 927 1520 Shah Beg Argun occupies Sind. Shah Hosain Arghun. 930 1523

# Table LXXVIII.—Bahmani Dynasty of Kalbarga, or Ahsunábád.

- A'là ud-din Hasan Shah gango Bahmani, scevant of a brahman in Muhammad Tughlak's court, subdued all the Dakhan.
- 1358 Muhammad Shah B. I. (Ghazi), makes tributary Telingana and Vijyanagar.
- Mujahid Shah B., killed by his uncle. 1375

Mahmud of Bhakar.

Daud Shah B., assassinated by his niece. 1378 1378

Akbar annexes Sindh to the Empire.

- Mahmud Shah I., youngest son of 'Ala; patron of literature. Ghias ud-din; blinded and dethroned. 1397
- Shams ud-din Shah; puppet to Lalchin, the Malik Naib or regent. Firóz Shah, married daughter of Vijyanagar rája, Deva Ray. 1397
- 1397
- Ahmad Shah Wali (Khan Khanan); war with rajas. 1422
- A'la ud-din Shah II., war with Vijyanagar. 1435
- 1457
- Humayan the cruel; general insurrection.

  Nizām Shāh; rājas of Telingana and Orissa powerful.

  Muhammad Shāh II.; Mālwa power increasing.

  Mahmad II.; loses Konkan, Bijāpār, and Berār. 1461 1463
- 1482
- 1518
- 1520
- Ahmad Shah II.; toses Konkan, Byapur, and Berar.
  Ahmad Shah II.; under control of Amir Berid, minister.
  A'la ud-din Shah III.; deposed by ditto.
  Wali Ullah; murdered by ditto.
  Kallam Ullah, Bahmani dynasty of Bidar (Ahmadabad) terminates, and is succeeded by that of Amir Berid at Ahmadabad. 1525

# Table LXXIX—Berid Shahi Dynasty of Bidar, or Ahmadabad.

- Kāsim Berid, a Tūrki or Georgian slave.
- Amir Berid; held sway over nominal kings.
- A'là Berid Shah; first who assumed royalty. 1549
- 1562 Ibrahim Berid Shah.
- Kāsim Berid Shāh.
- 1572 Mirzá A'li Berid Sháh; deposed by his relative.
- Amir Berid Shah II.

#### Table LXXX.—Faruki Dynasty of Kandeish. Capitale Talnir and Burhanpur.

- Malik Rája Faruki, receives the jágir of Tálnir, from Piroz.
- 1399 Malik Nasir or Nasir Khan Faruki, builds Burhanpur.
- Mîrân A'dil Khân Faruki, expels Dakhanies from Khandeish. 1437
- 1441
- Mîrân Mubărik Khân Furuki; peaceful reign. Mîrân Ghani, or A'dil Khân Faruki I.; tributary to Gujerût. 1457
- 1503
- Dâûd Khân Faruki, tributary to Mâlwa. A'zim Humâyûn, or A'dil Khân F. II.; grandson of Gujerât king. Mirân Muhammad Khân Faruki; succeeds to Gujerât throne. 1510
- 1520
- Mirân Mubarik Khân Faruki, brother; war with Moghuls. Mirân Muhammad Khân Faruki, attack from Dakhan. 1535
- 1566
- 1576
- Rája A'li Khân Faruki; acknowledges Akbar's supremacy. Bahâdur Khân Faruki; defies Akbar; is imprisoned at Gwâlior. 1596

## TABLE LXXXI.-Kings of Málsoa. Capitals Dhár. Mándo or Shádláhád.

1387 Sultan Dilawar Ghóri, governor, assumes title of Shah, 1401.

1405 Sultan Hoshang Ghóri, or Alp Khan, his son, defeats Narsinha Ray,

Ghazni Khan, or Sultan Muhammad Ghori; poisoned. 1432

1435 Mahmud Khan, or Sultan Mahmud Khilji. Rana of Chitor, Kumbho presents tanks coined in his own name, 1450.

1469

Sultán Ghiás ud-din ; peaceful reign. Sultán Násir ud-din ; his son, Shaháb ud-din, revolts. 1500 1512 Sultan Mahmud II., younger son, last of the Khiljis.

1534 Malwa incorporated with Gujerat kingdom.

1568 - annexed as a province of Akbar's Empire.

#### Table LXXXII.—Kings of Gujerat, Capital Pattan.

1391 Muzaffar Shah I.; appointed viceroy by Firoz Tughlak, A.R. 793, sasumes independence in A.H. 799 - A.D. 1396,

Ahmad Shūh I., grandson, builds Ahmadābūd and Ahmadnagar. Muhammad Shūh, surnamed Karim, the merciful. 1411

1443

Kutb Shâh; opposes Mālwa king, and Chitor rāja Kombha. Dāud Shāh, his uncle, deposed in favor of Mahmud Shāh I. Begarrā; two expeditions to Dakhan. 1451

1459

1459

1511

Muzaffar Shah II.; war with Rana Sanga. Sikandar Shah, assassinated. Nasir Khan, or Mahmud Shah II., displaced by 1526 1526

1526

Bahadur Shah, invades Malwa; murdered by Portuguese, Miran Muhammad Shah Faruki, his nephew, of Malwa. 1536

1538 Mahmud Shah, son of Latif Khan; released from prison. 1553

Ahmad Shah III., a spurious heir set up by minister. Muzaffar Shah III. Habba, a supposititious son of Mahmad. 1561

1572 Muzaffar Shah submits to Akbar, and in 1583 Gujerat finally becomes a province of Akbar's empire,

# TABLE LXXXIII .- Kings of Multan.

This province was first conquered by Muhammad Kasim, at the end of the first century, Hijra. It was recovered by the Hindús on the decline of the Ghazni power. After Muhammad Ghori's subjugation, it remained tributary to Dihli until

i.W.

847 1443 Sheikh Yúsaf established an independent monarchy.

849 1445 Ray Sehra, or Kutb ud-din Hosain Langa I.; expelled the Sheikh.

908 1502

Mahmúd Khán Langa; his minister, Jám Bayezid.

Hosain Langa II.; overcome by Sháh Hosain Arghún. Under
Humáyún, becomes a province of the empire (see below). 931 1524

# Table LXXXIV.—Imid Shahi dynasty of Berar. Capital, Ellichpur.

1484 Fath Ullah Imád Sháh, Bahmani, governor of Berár, became independent.

1604 A'lá-ud-dín Imád Sháh, fixed his capital at Gával.

1528? Daria Imad Shah, married his daughter to Hosain Nizam Shah.

1560? Burhán Imád Sháh, deposed by his minister.

1568 Tufal Khan, whose usurpation is opposed from Ahmadnagar, and the family of Imad Shah and Tufal extinguished.

#### Table LXXXV.—A'ádil Sháhí dynasty of Bijápúr.

- A.D. 1489 Yûsaf Khân, son of Amurath II. of Anatolia; purchased for the body guard at Ahmadábád.
- on the defeat of Dustur Dinar assumes independent sovereignty 1501 ns Yúsaf A'adil Shah.
- 1511 Isma'il A'adil Shah. Goa taken second time by Portuguese.
- 1534
- Mulla A'adil Shah, a profligate, deposed and blinded by Ibrahim A'adil Shah I. Minister Ramraj assumes throne of Vijyanagar. 1535
- A'li A'adil Shah; war against the Hindû raja. Ibrahim A'adil Shah II. Chand bibi regent. 1557
- 1579
- 1626 Muhammad.
- 1660 A'li A'adil II.

#### Table LXXXVI.—Nitám Shahi dynasty of Ahmadnagar.

- Ahmed Nizam Shah, Bheirg, son of a brahman of Vijyanagar; throws off 1490 Bahmani yoke.
- 1553
- Burhan Nizam Shah; petty wars with Berar, etc. Husain Nizam Shah I.; confederacy against Vijyanngar. Murtaga Nizam Shah, Diwana, conquers Berur; smothered by 1565
- 1588 Mirán Husain Nizam Shah, put to death.
- 1589
- 1590
- 1594
- 1594
- Miran Husain Nizam Shah, put to ceath.

  Isma'il Nizam Shah, ruised by Jumal Khan Mehdevi.

  Burhan Nizam Shah II.; constructs Korla fort.

  Ibrahim Nizam Shah, killed in battle.

  Ahmad, son of Shah Tahir, raised by chiefs; pensioned.

  Bahadur Nizam Shah, proclaimed by Chand bib's party; imprisoned by Akbar.

  Murtega Nizam Shah II.; Nizam Shahi dominions fall under the control of 1595
- 1598
- 1607 Malik Amber.

# Table LXXXVII .- Kuth Shahi Dynasty of Golconda.

- Sultan Kuli Kuth Shah, a Turkman, assumed title of king. 1512
- Jamshid Kuth Shāh, leagues with the Nizām Shāhis. Ibrahim Kuth Shāh, joins league against Rāmrāj. Muhammad Kuli Kuth Shāh, builds Bhagnagar or Haiderābād; died 1586.
- Abdallah Kuth Shah, tributary to Shah Jahan.
- Abû Hasan, imprisoned at Daulatábád.

Under Aurangzib, the southern conquests were formed into six Subahs, viz. : Kandeish; 2, Aurangūbād; 3, Bidar; 4, Berār; 5, Haiderābād; and 6, Bijāpūr.

# Table LXXXVIII.—Moghul Emperors of Hindustan.

#### (Fourth descendant from Taimur or Tamerlane, see Table LXX.)

- 1494 Babar, Zahir ud-din Muhammad (mounted throne 9th June).
- 899 937 Humayan, Nasir ud-din Muhammad (28th Jan.), in 946 defeated by 1531 Shir Shah.1
- founded the Moghul dynasty of Dihli. 1554 962
- Akbar, Abul fath, Jalul ud-din Muhammad (17th Feb.) consolidated 963 1556 empire.
- Jehängir, Abúl Muzaffar Núr ud-din Muhammad (7th Oct.) 1014 1605
- 1628 1037
- Shāhjahān, Shahāb ud-dīn Ghāzī (9th Feb.) Aurangzīb A'lamgīr, Abūl Muzaffar, Maḥī ud-din (24th Feb.) A'zīm Shāh, Muhammad Shahīd (3rd March). 1658 1068
- 1707 1118
- 1118 1707 Behadur Shah, Shah A'alam, Abul Muzaffar Kutb ud-din (23rd Feb.)

<sup>1 [10</sup>th Muharrem, A.H. 947. Ferishtah.]

Jahándár Sháh, Mú'iz ud-dín (11th Jan.)
Farukhofr, Muhammad Shahid Marhum (11th Jan.)
Rafia' ud-darjat, Shams ud-dín (18th Jan.), (Abú herkát.)
Rafia' ud-daulat, Sháhjahán Sáni (26th April).
(Muhammad Nakosir), (May).
Muhammad Sháh, Aból fath Násir ud-dín (28th Aug.)
(Sultán Muhammad Ibrahim), (4th Oct.)
Throad Sháh, Aból Nagr (20th April). (Shitan Munammad Ibrahim), (4th Oct.)

Ähmad Sháh, Abūl Nasr (20th April).

Alemgir II., A'ziz ud-din Muhammad (2nd June).

(Sháhjahán), (29th Nov.)

Sháh A'lám, Jalál ud-din (Mírzá Abdallah, A'lí Gohar), (Nov.)

(Muhammad Badar bakht).

Akbar II., Abūl Nasir, Moain ud-din Muhammad (3rd Doc.) 

## TABLE LXXXIX .- Nizáms of Haiderábád.

- Aşaf Jah, Nizam-ul-Mulk, usurped power on Aurangzib's death. Nasir Jung, assassinated. Muzaffar Jang, ditto. Salabat Jung, killed by Nizam Ali, his brother. Sikandar Jah. English interference, 1807.

# TABLE XC .- Numabs and Kings of Oude.

- Sa'dat A'lı Khan of Khorasan, Nuwab Vezir, under Muhammad Shah. Safdar Jang, ditto.
- Shuja' ud Daulah, ditto.
- Asnf ud Daulah.
- Spurious son, Vasir A'li, displaced for Sa'dat A'li, brother of Shuja', Vasir of Hindustan.
- Ghazi ud-din Huidar A'li, Shah Zaman, king.
- Naşir ud-din Haidar. Naşir ud-Daulah—Amjad A'li Shah.
- Wajid A'li Shah.

THE END.

#### ADDENDA TO USEFUL TABLES.

The paper on the Gold and Silver Currencies of India (pp. 69 to 92) was compiled, set up, and privately circulated in type in the month of October, 1856. As the period that has since elapsed has proved so calamitously exceptional both as regards the internal tranquillity and external commerce of the country, it has been deemed unnecessary to recast the memorandum, or to do more than complete the details as far as possible up to the present date, by the subjoined additional returns.

Page 81.—Value of Gold and Silver coined in the Mints of the three Presidencies for 1855-56.

50000 m 30000		
CALCUTTA.	MADRAS.	BOMBAT.
Value in Co.'s Rs.	Value in Co.'s Ra.	Value in Co.'s Rs.
Gold, 16,78,635 Silver, 3,87,62,323	Silver, 54,52,318	Silver, 2,55,21,952

Page 82.—Imports and Exports of Treasure (Gold and Silver) in each of the Presidencies of India, for 1854-55, 1855-56, 1856-57, at 2s. the Rupes (from a Parliamentary Return dated April 16, 1858).

YEAR.		BENGAL.	ONE.	MADRAS.					
YHAN.	Imports,	Exports.	Net Imports.	Importa.	Exports.	Net Imp.		Net Exp.	
1854-55 1855-56 1856-57	645,123 5,479,854 6,428,573	5,479,854 112,536 5,367,318		194,221 852,486 1,137,488	521,814 70,730 78,477	# 781,756 1,059,011		327,593	
		BOMBAY.			T	YTAL.			
TEAR.	Imports.	Esports.	Net Imports	Import	s. B	tporis.	,	Set Imp.	
1854-55 1855-56 1856-57	1,188,913 4,968,947 6,847,637	353,654 417,910 645,525	835,259 4,551,037 6,202,112	11,301,	288 6	8 601,176		761,223 10,700,111 13,160,270	

Page 84.—Value of Imports and Exports of Merchandise, from 1854-55 to 1856-57, from a Parliamentary Return dated April 16, 1858. The Return for 1854-55 is inserted, because that already given at Page 84 is only partially official.

MERCHANDESS IMPOSTED INTO THE	MERCHANDISH EXPOSTED FROM THE THREE PRESIDENCIES.
1854-5512,742,670	1854-5518,927,223
1855-56	1855-5623,039,268
1856-5714,194,586	1856-5725,338,453

Page 86.—Table exhibiting the Sums paid into the East India Company's Treasury in London, on account of Railways in India, up to the 31st March, 1858.

NAMES OF COMPANIES.	Capital assetsoned.	Total paid in.	Re-issued in England,
East Indian Great Indian Peninsula Madras Scinde, including Indus Flotilla and Punjaub Bombay, Baroda, and Central India Eastern Bengal	10,731,000 8,333,300 4,000,000	7,757,949 3,356,257 2,689,800	4,543,919 1,868,727 1,306,983
	2,750,000 1,750,000 1,000,000	934,151 723,448 35,000	272,540 337,841
	28,564,300	15,496,605	8,330,010

The following Statement, extracted from a Parliamentary Return, dated 13th April, 1858, shows the amount of Capital which it is estimated will be required for the Indian Railways sanctioned up to this time.

RAILWAY COMPANY.	Miles.	Estimated Outlay required to complete the several Linea sanctioned.
East Indian Eastern Bengal Madras East Indian Peninsula Sind and Punjab Bombay, Baroda, and Central India	1,400 130 740 1,208 350 330	12,731,000 1,000,000 6,000,000 10,000,000 2,500,000 2,000,000
		£34,231,000

Page 88.—Assay produce of Silver Bullion received into the Mints of Calcutta, Madras, and Bombay, for 1855-56.

Assay produce of Silver received from individuals	44.99.209
MADDAS.	4 4 4
Assay produce of Silver received from individuals.  Value of uncurrent coins received from Treasury officers.  Silver Coinage	3.70.938
HOWBAT.	
Assay produce of Silver received from individuals	10.60.480

Of this total the su: £1,900,748 has been disbursed as interest on capital.





# GENERAL INDEX.

[Where asterisks (\*) are inserted after the figures, the passages indicated will be found in the foot-notes.]

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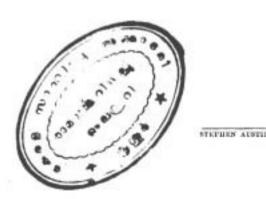
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